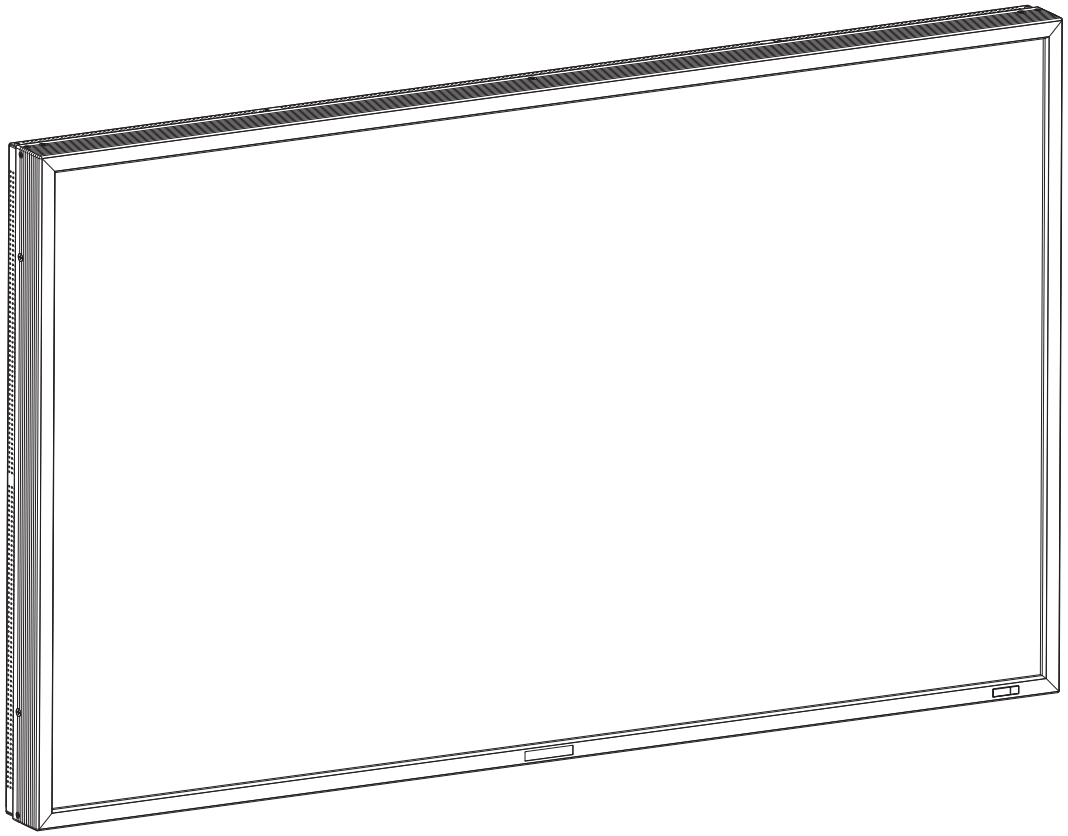
MITSUBISHI ELECTRIC

42" LCD Display Monitor

MDT421S (DR854)

使用说明书

USER'S MANUAL



中文简体

English

目录

重要资料 中文简体-2
安全预防、维护及建议 中文简体-4
包装箱内容 中文简体-5
部件名称及功能 中文简体-6
　　按钮、开关及指示器 中文简体-6
　　连接器和端子 中文简体-7
　　无线遥控器 中文简体-8
　　〈遥控器的操作原则〉 中文简体-9
　　〈遥控器的使用〉 中文简体-9
安装步骤 中文简体-10
　　CAT5视频连接 中文简体-12
LCD附件选项 中文简体-14
连接 中文简体-15
　　线路图解 中文简体-15
　　LCD 监视器与PC机的连接 中文简体-16
　　与带数字输出的计算机连接 中文简体-17
　　将DVD播放器与部件输出/HDMI输出/DVI输出连接 中文简体-18
　　连接至VCR/立体声放大器 中文简体-19
基本操作 中文简体-20
　　电源的开与关 中文简体-20
　　电源指示器 中文简体-21
　　使用电源管理功能 中文简体-21
　　选择一个视频信号源 中文简体-21
　　画面尺寸 中文简体-21
　　画面模式 中文简体-21
　　音频源选择开关 中文简体-21
　　锁定控制模式 中文简体-21
　　OSD 信息 中文简体-22
OSD （On-Screen Display） 屏幕调节 中文简体-23
　　画面（PICTURE） 中文简体-24
　　屏幕（SCREEN） 中文简体-26
　　音频（AUDIO） 中文简体-27
　　画中画（PICTURE IN PICTURE） 中文简体-27
　　配置1（CONFIGURATION 1） 中文简体-28
　　配置2（CONFIGURATION 2） 中文简体-29
　　高级选项（ADVANCED OPTION） 中文简体-30
　　注意 中文简体-32
　　〈图像残留〉 中文简体-32
　　〈延长公开显示功能的使用寿命〉 中文简体-32
　　〈如何设置定时〉 中文简体-32
　　〈PIP、POP和SIDE BY SIDE〉 中文简体-33
　　〈自动亮度功能的辅助资料〉 中文简体-33
　　〈遥控编码功能〉 中文简体-34
通过RS-232C/RS-485遥控器控制LCD监视器 中文简体-35
特征 中文简体-37
故障排除 中文简体-38
规格 中文简体-40
PIN 脚布置 中文简体-41

重要资料

一致性声明

此设备符合 FCC 规则第 15 部分的规定。操作时必须符合以下两个条件：（1）此设备不会产生有害干扰：（2）此设备必须可以承受任何接收到的干扰。包括可能导致不正常操作的干扰。

责任方：	**Mitsubishi Digital Electronics America, Inc.**
地址：	**9351 Jeronimo Road,**
	Irvine, California 92618 U.S.A.
电话：	**+1-(949)465-6000**

产品类型：计算机监视器
设备类别：B 类外设
型号：　MDT421S (DR854)

我们在此声明上面指定的设备符合 FCC 规则指定的技术标准。

Windows 是微软公司的注册商标。所有其它商标和生产品牌是它们各自所有者之商标或注册商标。
HDMI、HDMI 标识以及 High-Definition Multimedia Interface 是 HDMI Licensing, LLC 的商标或注册商标。
DisplayPort 图标是视频电子标准协会 (VESA) 在美国以及其它国家注册的商标。

加拿大通信部一致性声明

DOC: 此 B 级数字设备符合加拿大干扰成因设备条例的要求。

C-UL: 贴有 C-UL 标签，并且符合“加拿大安全法规”，中 CAN/CSA　C22.2 No.60950-1 的要求。

FCC 信息

1. 使用 MDT421S (DR854) 彩色监视器附带电缆，以免对无线电和电视接收造成干扰。
   （1）使用专用电源线或同等电缆以确保符合 FCC 要求。
   （2）请使用专用屏蔽视频信号电缆，15 针 Mini D-Sub。
2. 此设备经检测，符合 FCC 规则的第 15 部分中关于 B 类数字设备的限制要求。
   这些限制条件的目的是在居住区安装此设备时，可以提供合理的保护以防止有害干扰。本设备产生、使用会辐射射频能量，如果没有按照说明书要求安装和使用的话，可能会对无线电通讯产生有害干扰。然而，并不保证在个别安装时一定不会发生干扰。如果设备确实对无线电或电视机的信号接收产生了有害的干扰（可通过打开和关闭设备来判断干扰是否存在），我们希望用户通过以下一项或几项措施来消除干扰。
   ・重新调整接收天线的方向或位置。
   ・增大设备与接收器之间的距离。
   ・把设备和接收器连接在不同的电路插座上。
   ・向代理商或有经验的无线电或电视机技师寻求帮助。

如果必要，用户应和代理商或有经验的收音机和电视机技师取得联系以寻求更多的建议。由联邦通信委员会提供的小册子很有帮助“如何判断和解决无线电 - 电视机干扰问题”。这本小册子能从美国政府印刷局获得，地址华盛顿特区 20402，编号是 004-000-00345-4。

重要资料

警　告

为防止火灾或电击危险，切勿使本设备遭受雨淋或受潮气。另外，切勿将本设备的极性插头插入延长线电源插座或其它插座中，除非插头能够完全插入。

小　心

注意：　为降低电击风险，请确认电源是否已拔离墙上插座。为了完全切断本机的电源，请将电源插头从电插座上拔离。不要打开机盖（或后盖）。设备内部没有供用户自行维修的部件。维修工作须由专业维修人员进行。

此符号用于警告用户设备内部有非绝缘的电压，其强度足以造成电击危害。因此，同设备内部的任何部件接触都是危险的。

此符号提醒用户本设备提供了有关操作和维修的说明书，请认真阅读这些说明以避免出现任何问题。

小　心

液晶监视器使用含汞光源灯。出于对环境保护的考虑，处理这种废灯管或带有灯管的废监视器可能会受到管制。有关废品处理或再生利用的信息，请与当地有关部门联系或询问美国电子工业协会。

厂商声明

厂商声明

我们在此保证彩色监视器 MDT421S（DR854）
符合
Council Directive 2006/95/EC:
- EN 60950-1

Council Directive 2004/108/EC:
- EN 55022
- EN 61000-3-2
- EN 61000-3-3
- EN 55024

并且带有标记

CE

Mitsubishi Electric Corporation
2-7-3, Marunouchi,
Chiyoda-Ku
Tokyo 100-8310, Japan

安全预防、维护及建议

为了保证最佳使用状态，在使用 LCD 彩色监视器时请注意以下事项：

- **禁止打开监视器后盖。**监视器里没有用户可以调整的部件。擅自打开监视器会引起电击或其他危险。只有专业人员才能维修。
- 不要使液体溅入监视器，也不要在有水的地方使用监视器。
- 不要在监视器的开口处插入任何金属器件，因为这些器件可能会碰到危险电压，从而导致生命伤害，也可能引起电击，火灾或设备损坏。
- 电源线上不要放任何东西。电源线损坏可能引起电击或火灾。
- 不要将监视器放置在倾斜或不稳定的车上、架子或桌子上，这样会使监视器跌落从而导致严重损坏。
- 当在北美洲使用 100 - 120V 的交流电操作彩色监视器时，请使用附带的与其相匹配的电源线。
- 当在欧洲使用 220 - 240V 的交流电操作彩色监视器时，请使用附带的与其相匹配的电源线。
- 在英国使用本监视器时，请使用欧洲 BS 认证的带有黑色 (10A) 保险丝的塑壳插头的电源线。
  如果没有符合本监视器的电源线，请与销售商联系。
- 当在澳大利亚使用 220 - 240V 的交流电操作彩色监视器时，请使用附带的与其相匹配的电源线。
  如果没有符合本监视器的电源线，请与销售商联系。
- 其它情况下，请使用符合当地国家、地区的电压，并且其安全性被认可的电源线。
- 不要在监视器上放置物体并且不要在室外使用监视器。
- LCD 监视器的灯管里含有汞。废弃时须遵照当地有关法律或规定。
- 不要弯折电源线。
- 不要在高温，潮湿，多尘，油污的环境下工作。
- 如果监视器或玻璃破了，不要立即接触液晶，小心处理。
- 如果 LCD 监视器损坏、液晶泄漏，请勿吸入或吞咽。
- 使监视器周围保证足够的通风有利于散热，不要阻塞监视器上的通风孔，不要将监视器靠近暖气或其他热源。
  不要在监视器上放置任何东西。
- 电源线接头是系统连接电源的主要手段，将监视器安装在离电源插座近的地方。
- 在搬运时轻放轻拿，请保存包装材料以便运输时使用。
- 保持 LCD 的无污及无尘。建议每年至少一次清洁背板缝隙。
- 连续使用冷却风扇时，建议每月至少一次清洁风口。
- 在安装遥控器电池时
  - 按照电池舱内的“＋”和“－”标记正确安装电池。
  - 装入时首先将电池的的负极对准舱内的“－”标记。

注意：

在下列情况下应立刻拔下电源插头，请专业人员维修:

- 电源线或插头损坏。
- 液体或金属物落入监视器内。
- 监视器遭到雨淋或有水溅入。
- 监视器跌落，或监视器箱体损坏。
- 按照说明书操作，监视器仍无法正常工作。

建议
注意：

- 为了实现最佳运行状态，应进行 20 分钟预热。
- 定期放松眼睛，注视 5 英尺以外的物体或眨眼。
- 将监视器放置在与窗口成 90 度的方向上，以减少强光反射。调整监视器角度使其稍微倾斜，以减少天花板在屏幕上的反光。
- 擦试屏幕时使用不起毛、无腐蚀的棉布，避免使用清洁剂和玻璃清洁剂。
- 调整监视器的亮度和对比度，以提高清晰度。
- 避免在监视器上长时间显示同一模式，从而避免图像滞留现象（残像效应)。
- 定期检查视力。

人机工程学

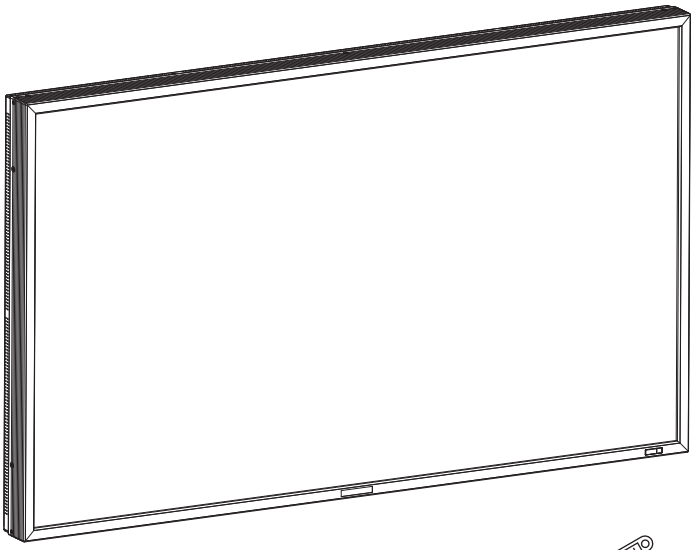
为了最大限度的取得人机工程学上的益处，我们推荐采用以下措施：

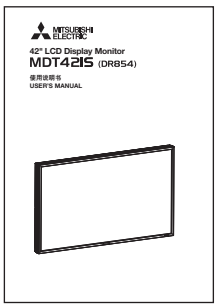
- 使用标准信号的预设大小和位置控制。
- 使用预设色彩设置。
- 使用非隔行信号。
- 在暗光背景中不要使用蓝基色，因为那样会看不清，同时也会因为对比度不足而使眼睛疲劳。

包装箱内容

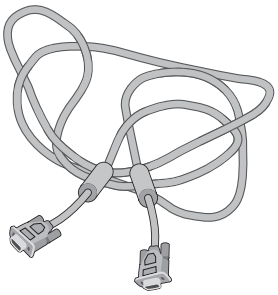
新购置的 MDT421S 监视器包装箱里应该包含以下各项：

- LCD 监视器
- 电源线（3m）
- 视频信号电缆 (4m)
- 用户手册
- 无线遥控器及 7 号电池 ×2
- 夹子 ×2（用于防止掉落）
- 夹子 ×3（用于固定电缆）
- 夹子 ×2（用于固定电源线、HDMI 电缆和 Display Port 电缆）
- 用于夹子的固定螺丝（用于防止掉落）×2



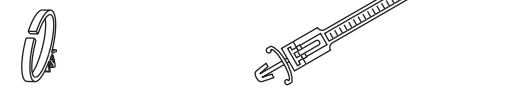


用户手册



视频信号电缆
（D－SUB接口与D－SUB接口间的连接电缆）

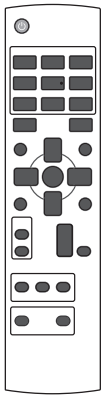
用于夹子的固定螺丝
（M4）×2

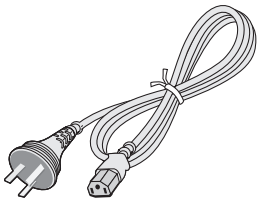


夹子×3
（用于固定电缆）

夹子×2
（用于固定电源线、
HDMI电缆和Display Port电缆）

夹子×2
（用于防止掉落）





电源线

无线遥控器和7号电池

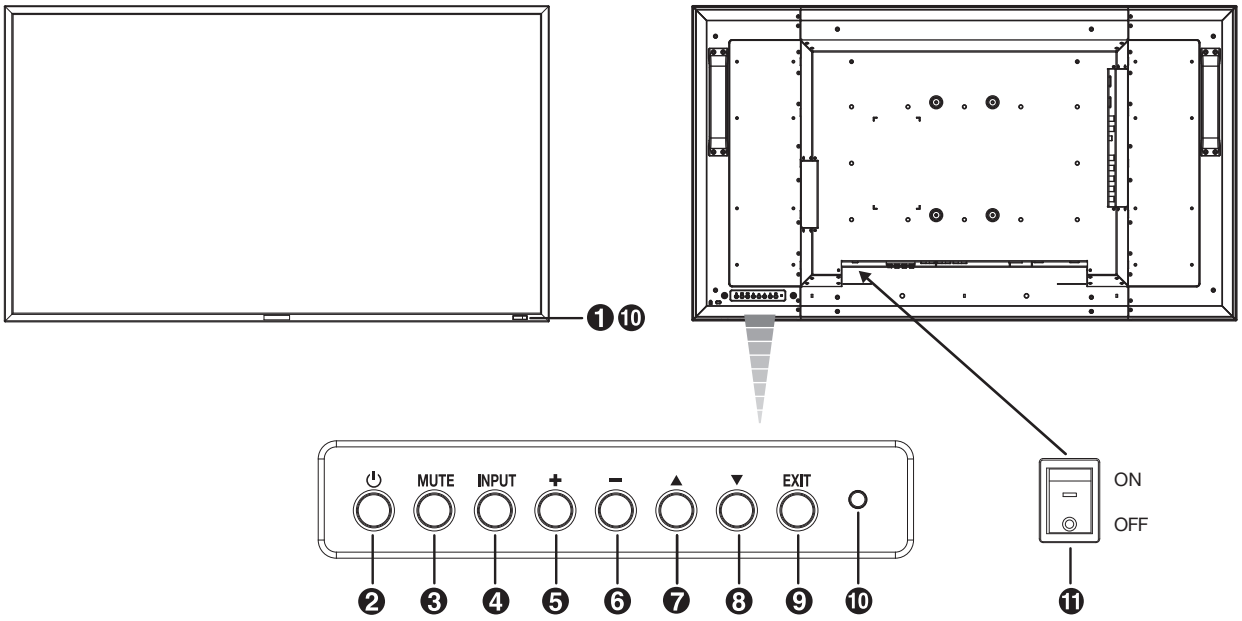
* 请保存原包装箱和包装材料，以便在运输监视器时使用。

下列附件在MDT421S的使用时是可选用的：

- 外接音箱
- 支座
- 保护框
- CAT5 组件

部件名称及功能

按钮、开关及指示器



❶ 遥控器接收窗口及电源指示器
（当使用无线遥控时）从遥控器上收到信号。也可参照第 9 页。
当 LCD 监视器启动时，发出绿光，关闭时发出红光。而当 LCD 监视器处于省电模式时，两者同时发光。当 SCHEDULE（定时）启动时,发出红光的同时绿光闪烁。请参照第 21 页。如果发现了故障，红光将闪烁。

❷ 电源键（⏻）
切换电源开关。也可参照第 20 页。

❸ 消音键
声音的开与关。

❹ 输入键
显示 OSD 菜单，切换视频输入。
（按升高（▲）键和降低（▼）键,可在 [RGB1]、[RGB2]、[RGB3]、[RGB4]、[RGB5]*、[RGB6]、[DVD/HD]、[VIDEO<S>]、[VIDEO] 之间进行切换。）
*：当安装有选购的 CAT5 Rx BOX 时，[RGB5] 有效。
当显示 OSD 菜单时按下此键，可以进入菜单。（见第 23 页）

❺ 增加（+）键
在 OSD 菜单中作为（+）键增加调整的功能。
当 OSD 菜单关闭时，增加声音的音量。

❻ 减少（-）键
在 OSD 菜单中作为（-）键减少调整的功能。
当 OSD 菜单关闭时，减少声音的音量。

❼ 升高（▲）键
当 OSD 菜单关闭时将 OSD 菜单激活。作为▲键将拉黑部分向上移动，以选择 OSD 菜单中需调节的项目。

❽ 降低（▼）键
当 OSD 菜单关闭时将 OSD 菜单激活。作为▼键将拉黑部分向下移动，以选择 OSD 菜单中需调节的项目。

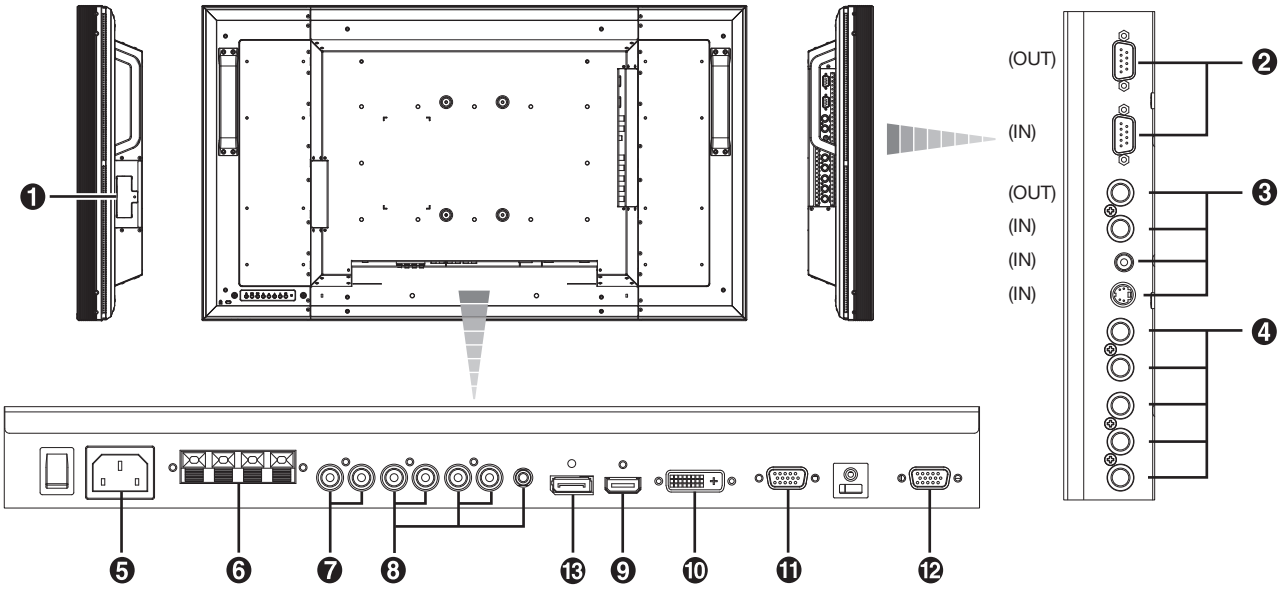
❾ 退出键
当 OSD 菜单没有显示时，可以按下 EXIT 键显示 OSD 菜单。
当显示 OSD 菜单时按下此键，可以退出菜单。
（按下 INPUT 键可以进入菜单。）在主菜单中按下此键，退出 OSD 菜单。（见第 23 页。）

❿ 亮度传感器（前，后）
自动亮度功能传感器。（见第 25 页，第 33 页。）

⓫ 总电源开关
总电源开关切换按键。

注意：控制键锁定方式
这种控制键锁定方式在三秒钟后完全锁住所有操作键功能的使用。激活控制键锁定功能,“▼”和“▲”都按，并同时压住。重新执行使用方式,“▼”和“▲”都按，并同时持续按三秒钟。

连接器和端子



❶ CAT5 Rx BOX 槽
将 CAT5 Rx BOX(选购品)插入该槽中。(见第 12 页。)
注意:
绝不能将网络装置连接至 CAT5 IN 和 OUT 连接器。否则，它们可能会相互影响，引起故障。

❷ 外部控制（mini D-Sub 9 针）
将 IN 连接器连接到计算机或多台连接的 MDT421S 监视器的 RS-232C OUT 连接器。
使用多连接口 MDT421S 或 MDT521S 监视器的 RS-232C IN 连接器连接 OUT 连接器。

❸ 视频
视频输入（BNC 或 RCA）: 接收复合视频信号。BNC 和 RCA 在同一时间不是都可用。(仅仅一个可用)
视频输出(BNC): 从连接器中的视频输入复合视频信号。
S-VIDEO 输入接口（MINI DIN4 针）: S-VIDEO 的接收(Y/C 独立的信号)。

❹ RGB 输入接口 4/ DVD/HD 输入接口 (BNC)
用于从电脑或其他 RGB 设备输入模拟 RGB 信号。
与 DVD 播放器，HDTV 装置或者是激光硬盘播放器进行连接。见第 16 页、第 18 页。

❺ AC 电源的插孔
与电源线连接。

❻ 外部音频端子
用于输出来源于音频输入插口 1、2、3 或 HDMI 的外接扬声器用音频信号。

❼ 音频输出
用于输出来源于音频输入插口 1、2、3 或 HDMI 的音频信号。

❽ 音频输入 1、2、3
与计算机,VCR 或 DVD 类的外部设备中的音频信号连接。

❾ RGB 输入接口 1 (HDMI)
输入来自于计算机、DVD 播放机等的数字 RGB 信号。
* 此连接端口不能支持模拟输入。
音频由 HDMI 支持。

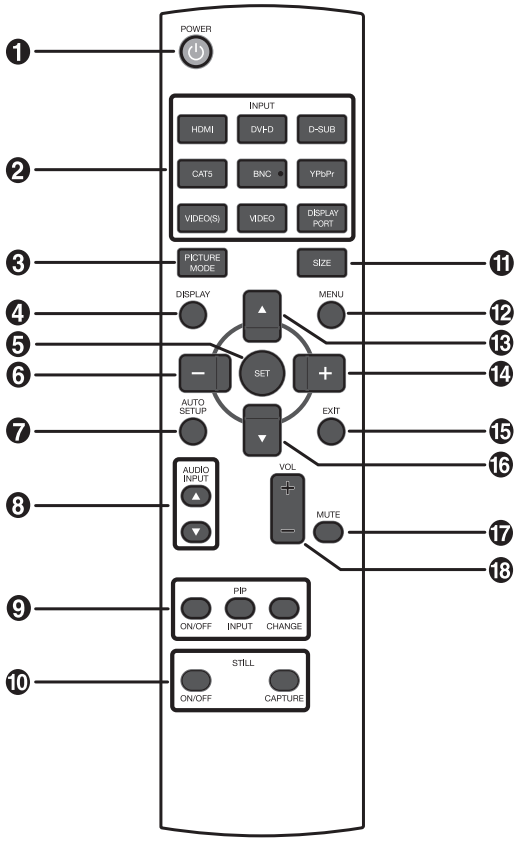
❿ RGB 输入接口 2 (DVI-D)
从数字 RGB 信号输入端口连接到计算机的数字 RGB 信号输出端口。
* 此连接端口不能支持模拟输入。
音频由 DVI-D 支持。

⓫ RGB 输入接口 3（mini D-Sub 15 针）
用于连接电脑或其他 RGB 设备输出的模拟信号。

⓬ RGB 输出接口（mini D-Sub 15 针）
为了从 RGB3、4 和 5 端口中输出信号。

⓭ RGB 输入接口 6 (DISPLAY PORT)
从数字 RGB 信号输入端口连接到计算机的数字 RGB 信号输出端口。

无线遥控器



❶ 电源键
控制电源的开 / 关。
* 如果显示器上的 LED 电源指示器不发亮，控制功能不工作。

❷ 输入键
选择输入信号，[RGB1]（HDMI）、[RGB2]（DVI-D）、[RGB3]（D-SUB）、[RGB4]（BNC）、[RGB5]*（CAT5）、[RGB6]（DISPLAY PORT）、[DVD/HD]（YPbPr）、[VIDEO<S>]、[VIDEO]。
*：当安装有选购的 CAT5 Rx BOX 时，[RGB5] 有效。

❸ 图像键
选择图像，[HIGHBRIGHT]，[STANDARD]，[sRGB]，[CINEMA]。见第 21 页。
HIGHBRIGHT[高亮度]：用于视频动画图像。
STANDARD[标准]：用于图片。（出厂默认值）
sRGB：用于基于文本的图片。
CINEMA[电影]：用于电影播放。

❹ 显示键
OSD 信息的显示与消失。见第 22 页。

❺ 安装键
确定 OSD 菜单的调节内容。

❻ 减少键
此键是 OSD 菜单的调节键。
调节“PIP”功能时，使小屏幕左移。

❼ 自动设置
进入自动设置菜单。见第 28 页。

❽ 音频输入键
按此健选择适用于各视频源的音频源。音频源的变换顺序为 [AUDIO1]、[AUDIO2]、[AUDIO3]、[HDMI]。请注意，不能选择用于 [VIDEO<S>] 或 [VIDEO] 的音频源，只有在视频源为 [RGB1] 时才能选择 [HDMI]。

❾ 画中画键
ON/OFF 键: 连接 PIP-ON/OFF 之间的开关。见第 27 页、第 33 页。
INPUT[输入] 键：选择画中画输入键。
CHANGE[改换] 键：变换主画面和次画面。

注意:
当画面尺寸为“CUSTOM”（自定义）或“REAL”（实时）时，“PIP”和“POP”模式将不能起动。

❿ 静止键
ON/OFF：静止画面的动与静。
CAPTURE[捕获]：捕获新的画面。

⓫ 尺寸键
选择画面尺寸，[FULL]、[NORMAL]、[CUSTOM]、[DYNAMIC]、[REAL]。见第 21 页。

⓬ 菜单
关闭与启动菜单。

⓭ “▲”键
当 OSD 菜单运行时，用此键选择需调节的项目。
调节“PIP”功能时，使小屏幕上移。

⓮ 增加键
此键是 OSD 菜单的调节键。
调节“PIP”功能时，使小屏幕右移。

⓯ 退出键
回到前一 OSD 菜单。

⓰ “▼”键
当 OSD 菜单运行时，用此键选择需调节的项目。
调节“PIP”功能时，使小屏幕下移。

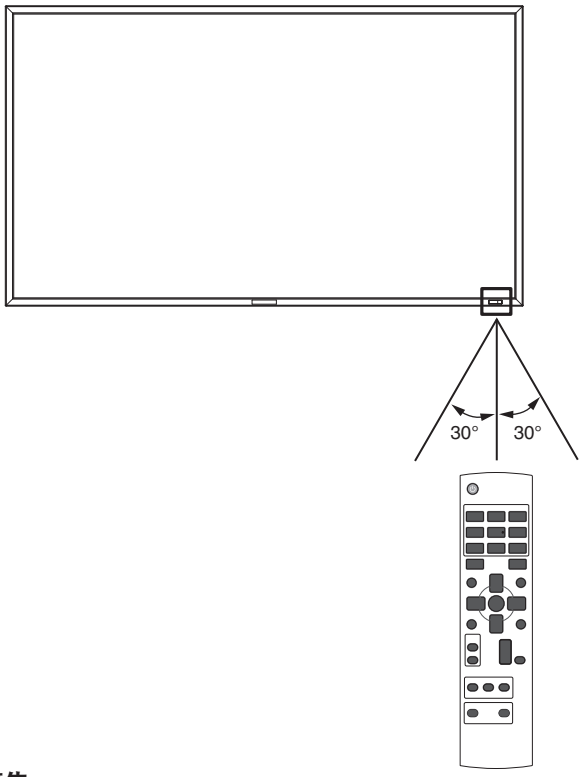
⓱ 静音键
静音功能的开与关。

⓲ 音量键
增大或降低音频的输出量。

〈遥控器的操作原则〉

遥控器的头部到 LCD 监视器的遥控接收窗口之间通过按键控制。

遥控器的使用距离大约 7m 左右。当 LCD 监视器遥控接收窗口的水平 / 垂直角度为 30 度时，遥控距离约 3m。



警告

当垂直的阳光或强光照射 LCD 监视器的遥控接收窗口时，或当中间有物体遮挡时，遥控器的信号无作用。

〈遥控器的使用〉

- 除安装电池，不要打开遥控器盖。
- 不要使水或其它液体进入遥控器。如果遥控器弄湿了，立刻擦干。
- 防止部件受热或蒸汽。
- 除了更换电池，任何情况下都不要打开遥控器盖。

安装步骤

1. 安装位置的限制

警告:
安装你的 LCD 设备，必须由技师来安装。
与商家联系，以得到更多的信息。

警告:
移动或安装 LCD 监视器时，必须由两个或更多的人来做。
如果 LCD 监视器坠落，将致人受伤。

重要:
当组装时，环绕 LCD 监视器设置保护性支架，保证被覆盖的 LCD 监视器不会触及板条。

警告:
不要将监视器颠倒或面朝下对其进行安装或操作。

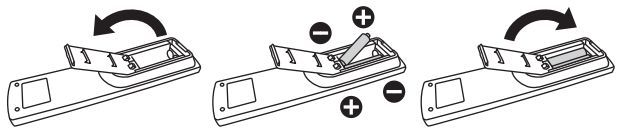
警告:
请勿将本产品设置在有阳光直射的场所。否则可能无法正常显示。

警告:
LCD 监视器中有温度传感器和冷却风扇。如果 LCD 变得过热，冷却风扇便会自动运行。 如果 LCD 的温度在冷却风扇运行时仍然过高，则屏幕中会出现“警告”菜单。如果“警告”菜单消失，停止 LCD 的运行使其降温。如果有遮罩或是表面有保护装置下运行 LCD, 应该用“热状态”装置检测监视器内部的温度（请参阅 31 页内容）。如果温度过高，请在“屏幕保护”功能中将“冷却风扇”设置为“开”的状态（请参阅 28 页内容）。

重要:
请在包装 LCD 监视器的时候，在其周围覆上保护性薄膜以免刮伤监视器的面板。

2. 安装遥控器的电池

遥控器的电池是 1.5V 7 号电池。安装与拆卸:
1. 按照箭头指示方向打开电池盖。
2. 平放电池，并按照正负极安装。
3. 盖上盖子。



警告:
错误的用法将导致电池漏液及破碎。MITSUBISHI 推荐以下的电池使用方法:
- 放置 7 号电池，使每节电池的“+”“-”标记与空隔中的“+”“-”标记相匹配。
- 不要使用不同种类的电池。
- 不要将新电池与旧电池混合使用，否则会缩短电池寿命及发生电池漏液。
- 立刻拆卸已坏的电池，以防止电池的酸液流入电池盒子中。不要接触已坏的电池酸液，它可致使你的皮肤损伤。

注意：
如果你不打算长时间的使用遥控器，请将电池拆掉。

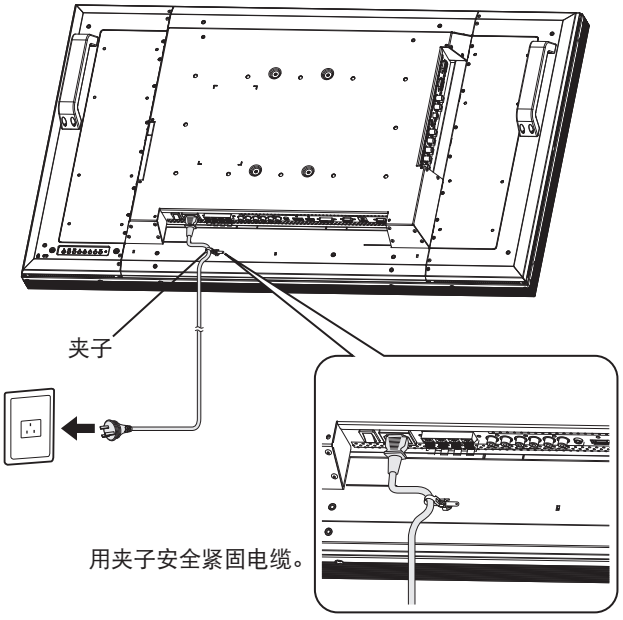
3. 外部设备的连接（见第 15-19 页）

- 为了保护连接的设备，组装前关闭主要的电源。
- 参考你的用户使用手册。

4. 电源线路的连接

- 电源的输出端的连接，要方便于操作。
- 将插头完全插入插座中，松散的连接会使图像不清晰。

注意：
关于如何正确选择 AC 电源线，请参阅本手册的 “安全预防、维护及应用”部分。



5. 打开所有的附加外部设备的电源

当连接计算机时，首先打开计算机的电源。

6. 附加外部设备的操作

连接你想显示外部设备的信号。

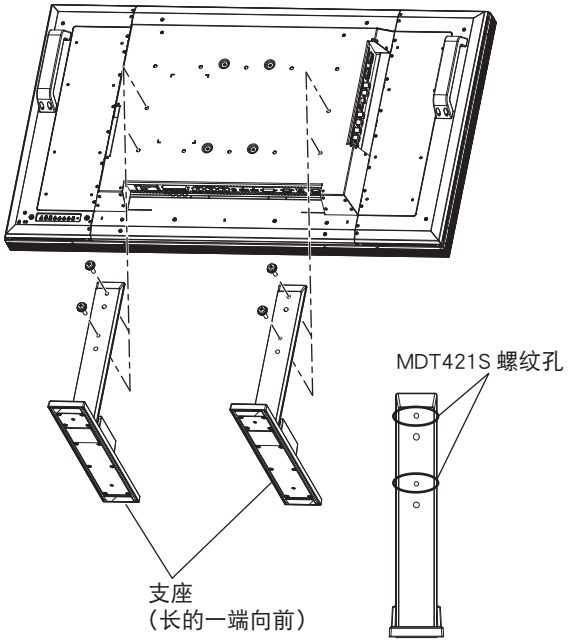
7. 调节音量
按照需要降低或提升音量。

8. 调节屏幕（见第 24-34 页）
按照需要调节屏幕位置或设置。

9. 调整图像（见第 24-34 页）
按照需要调节亮度或对比度。

10. 推荐调整
为防止出现“图像残留”，请根据所使用的应用程序调整以下项目。
参阅“节电模式”(见第 28 页), “屏幕保护”(见第 28 页), “边框颜色”(见第 28 页)、“日期和时间”(见第 31 页)、“程序”（见第 31 页)。

11. 当监视器安装到墙上时
支座为可选部品。
更多信息，参考支架用户手册。

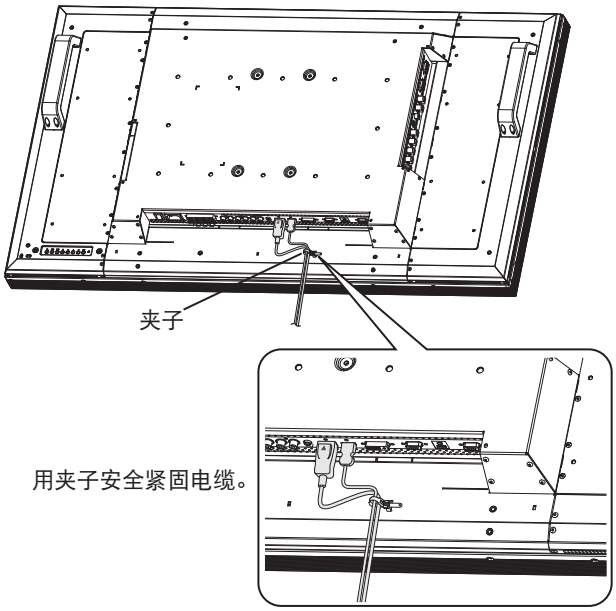


如何拆下底座：
1. 在平坦的平面上展开安全支架，如桌子。
2. 拧紧监视器两端的螺钉。

注意：
安装时请将支座的长的一端向前。

如何安装支架：
1. 请关掉监视器。
2. 将监视器的插入插头插入孔穴，直至成功。
3. 用螺丝刀取下螺丝，将其妥善保管以备后用。

12. 连接 HDMI 电缆和 Display Port 电缆



13. 纵向设置显示器（MDT421S）时

条件

MDT421S 可以纵向放置。请按照以下事项设置显示器，注意不要将上下方向颠倒。

警告：

本机从自立台座上取下后将无法单独放置。
请务必配合使用壁架、悬吊挂件（另售）等。
纵向放置使用显示器将缩短 LCD 背景灯的平均寿命。
工作环境（温度）须有如下限制：

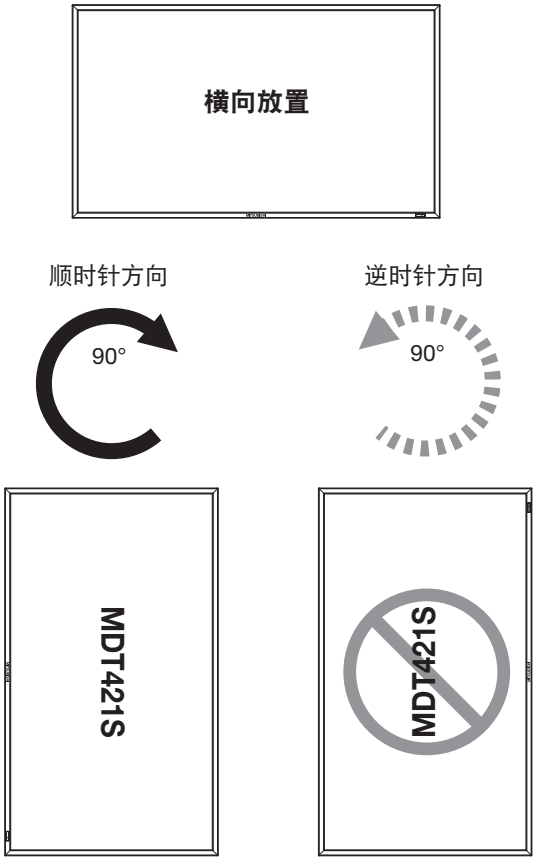
使用环境条件：

温　度　5 - 35 ℃ / 41 - 95 ˚F
湿　度　20 - 80 %（不得有结露现象）

如下所示，请仅按照所建议的方向设定产品位置：
请勿放置其他方向。
当该 LDC 监视器未安装在直立位置时，不能安装选择的扬声器（SP-421S）。

设置的方法

横向的左侧边缘（从前视）应为上缘。



14. 远程连接时，使用 CAT5 组件

注意：

CAT5 是 MDT421S 的选购件。详细安装程序，见 CAT5 组件（选购件）的用户使用手册。

CAT5 视频连接

CAT5 视频连接功能是使用 CAT5 电缆长距离传送计算机的模拟 RGB 视频信号和监视器的控制信号。计算机可以通过挂载在 MDT421S 上的可选 CAT5 Tx BOX 和 CAT5 Rx BOX 控制监视器。

警告：

绝不能将网络设备（如：网络集线器和局域网的电脑）连接至 CAT5 组件的 CAT5 IN 和 OUT 连接器。如果它们被连接到一起，网络设备 CAT5 Tx BOX、CAT5 Rx BOX 以及监视器有被损坏的可能。

1. 安装 USB 驱动器，进行 CAT5 系列通讯控制

通过 USB 接口连接电脑和 CAT5 Tx BOX 时，须要从 CAT5 组件（选购件）的附属 CD-ROM 安装 USB 驱动器。（当通过 RS-232C 界面连接计算机和 CAT5 Tx BOX 时，不必安装 USB 驱动器。）

支持的 OS：Windows® XP, Windows Vista®

安装方法：

1）Windows® XP 的安装

启动 CAT5 组件（选购件）的附属 CD-ROM 中 Windows XP 文件夹中的“PL2303-Driver_XP2K_V******.exe”文件，按照显示器上提示的步骤安装驱动器。

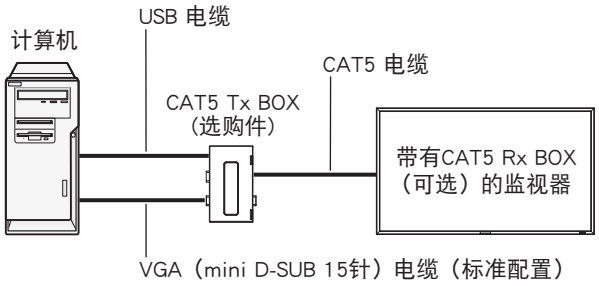
2）Windows Vista® 的安装

启动 CAT5 组件（选购件）的附属 CD-ROM 中 Windows VISTA 文件夹中的“PL2303_Prolific_Vista_******.exe”文件，按照显示器上提示的步骤安装驱动器。

2. CAT5 视频连接功能的连接

有两种连接方式。

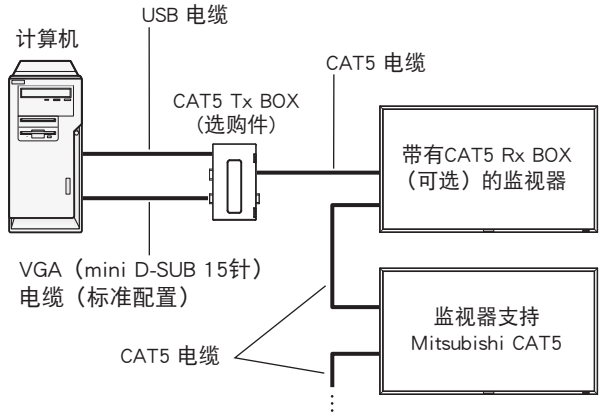
1）连接至 1 个监视器。



1. 使用商用 USB 电缆将 CAT5 Tx BOX 的 USB 连接器连接至计算机。（如果 USB 驱动器不可用，除过 USB 电缆外，再连接一根 RS-232C 电缆。在这种情况下，USB 电缆用于向 CAT5 Tx BOX 提供电能）。见第 35 页。

2. 使用带有监视器的信号电缆（miniD-SUB 15 针）连接 CAT5 Tx BOX 的 D-SUB 输入连接器和计算机 VGA（D-SUB）输出连接器。
3. 使用市售的 CAT5 电缆连接 CAT5 Tx BOX 模块连接器 CAT5 Rx BOX 和 CAT5（RGB5）IN 连接器。

2）连接至多个监视器



1. 除过进行上述第 1）步的连接外，使用商用 CAT5 电缆，将第 1 个监视器的 CAT5 OUT 连接器连接至第二个连接器的 CAT5（RGB5）IN 连接器。
2. 以同样的方式连接第三个及其它监视器。最多可以连接 5 个监视器。

允许的电缆长度

连接	最大电缆长度 / 信号定时
一个监视器	150 m/ 1920 × 1080 @60 Hz
多个监视器	200 m/ 1920 × 1080 @60 Hz （连接电缆的总长度）

上述长度是根据我们标准信号源和推荐电缆的实际测量为基础。安装前，将监视器与计算机和电缆连接，检查监视器的运行情况。

推荐电缆：
8 针模块式连接器，直通，屏蔽，5 类或 5e 类
经过兼容性测试的市售电缆（使用市售屏蔽连接器）：
Belden 7929A，Nex1 的 NFTP-C5e-GY

3. CAT5 视频连接的各种设置

在 CAT5 视频连接中，根据 OSD 屏幕的显示，配置下列设置（见第 29 页）。

1）CAT5 电缆的长度

选择电缆的长度，便能自动确定所有调整值的默认值。选择与实际电缆长度最接近的长度。

2）CAT5 EQ

进行调整，使显示字母和图形对象的污点最小化。

3）CAT5 R-GAIN/G-GAIN/B-GAIN

当显示图象为黑色时，将每一个值增加。当白色部分未按照预期要求显示时，调整 R-GAIN 和 B-GAIN 的值。

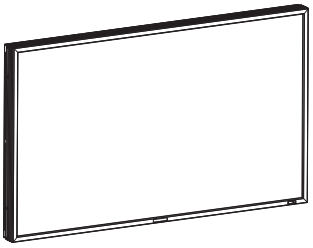
4）CAT5 R-SKEW/G-SKEW/B-SKEW

对每一个值进行调整，使显示字母和图形对象的颜色偏差最小化。

LCD 附件选项

你可以使用以下两种方法安装附加零件于 LCD 监视器上。

1. 在垂直位置

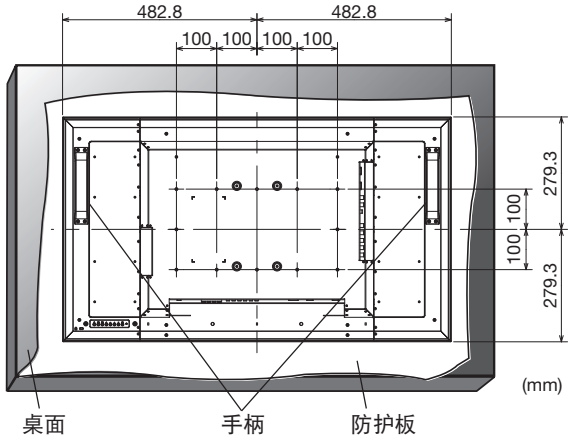


2. 把屏幕朝下

为了防止损坏屏幕表面，使 LCD 置于放在桌面上的保护支架上。保护支架被用于覆盖 LCD 监视器。

该装置在没有桌面支架或其它附加支架时不能被使用。为正确安装强力推荐使用专门的 MITSUBISHI 授权的服务机构。不遵守 MITSUBISHI 标准安装过程将导致机器的损坏和对使用者或安装者的伤害。产品保修不适用于由不正确安装引起的安装损坏。不遵守这些规定将导致您的保修失效。

使用 M6 螺钉进行连接（长度为 10 mm，该值大于安装支架的厚度值），并且将其拧紧。使用弹垫等防止螺钉松动。三菱电机推荐使用符合北美 TÜV-GS 和 / 或 UL1678 标准规定的安装接口。



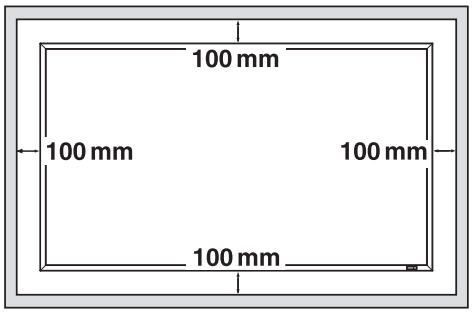
警告：

为了防止监视器跌落

- 将监视器安装于墙壁或天花板上时，请自行使用金属支架（可市购），详细的安装程序请参见金属支架的说明书。
- 为了降低在发生地震或其它灾害时监视器跌落而招致受损或伤害的可能性，就安装位置请与支架的生产厂家协商。
- 为减少监视器掉落的可能性，请用市售的吊绳穿过监视器左右两侧的手柄并安全地挂在墙壁或天花板的挂钩上。
- 不要在发生地震或其它灾害时，在监视器可能倾倒或跌落之处睡眠。

3. 对安装周围的通风需要

为了能让热量散出去，应如下图所示，与周围物件之间保留一定的间隙。

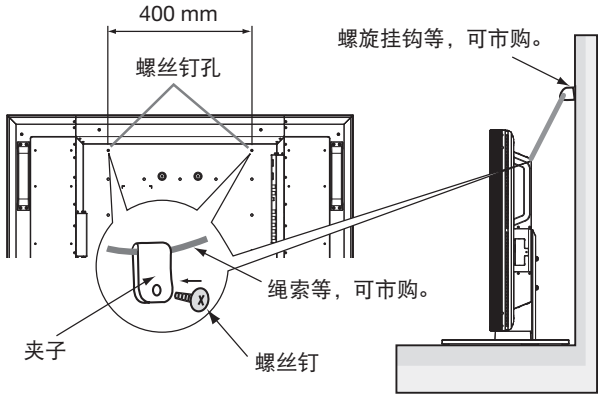


4. 用于防止监视器掉落

当显示器使用支座（可选部品）时，请采取安全措施，以减低在地震或其它灾害发生时因显示器跌倒所造成的损害。

如图所示，使用足以承受监视器重量（MDT421S：约为 27kg（安装可选部品支座时））的绳索（可市购），将监视器可靠地固定在结实的墙壁或柱子上。

当使用螺旋挂钩（可市购）、环形挂钩时，不推荐使用 C 形的螺旋挂钩（带开口的）。



警告：

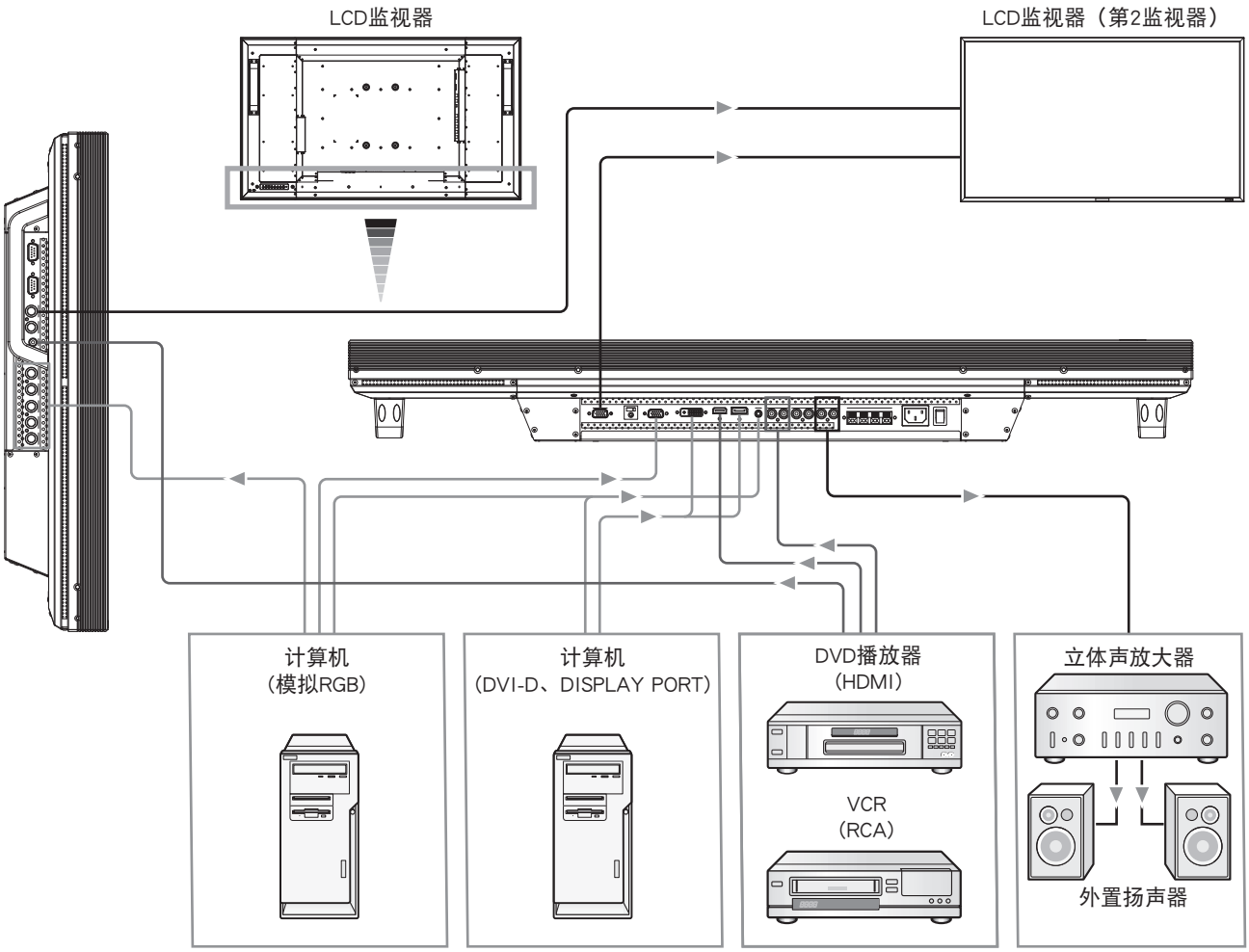
- 防掉落措施的有效程度本质上取决于支架和用于固定防掉落件的基座的强度。假如您不能确认足够坚固的话，应当采取适当的加固措施。
- 虽然所推荐的防掉落措施可以减少受伤或受损的可能性，但并不能保证对于所有的地震或其它灾害均有效。
- 不要在发生地震或其它灾害时，在监视器可能倾倒或跌落之处睡眠。
- 在移动监视器之前，要先拆除用于固定监视器的绳索。假如不这样做，可能会导致监视器受损或解体。

连接

线路连接前

· 首先关闭所有附属设备的电源，然后连接。
· 参考包括设备的每一种零件的使用说明书。

线路图解

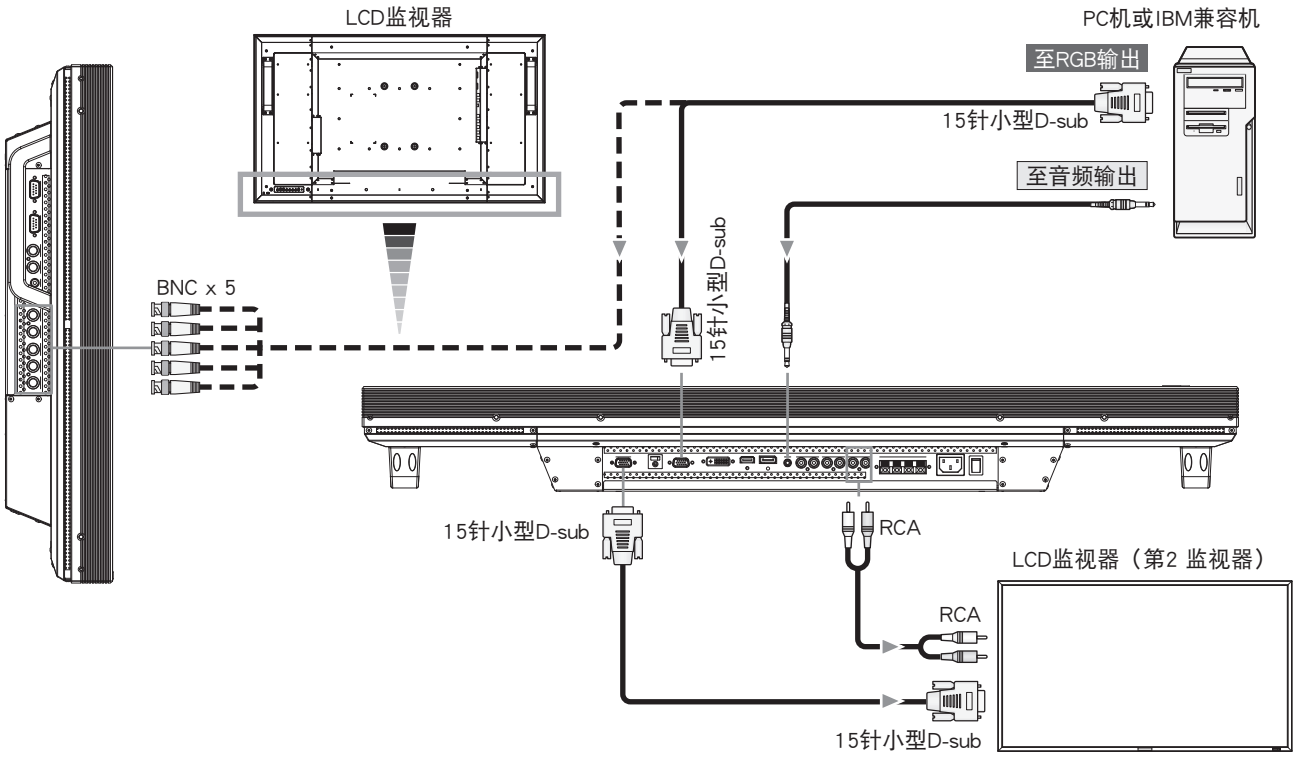


LCD 监视器与 PC 机的连接

将计算机连接到 LCD 监视器上，即能显示计算机屏幕影像。
一些视频卡不能正确显示影像。

LCD 监视器与计算机的连接

- 将 RGB3 IN 连接器（15 针小型 D-SUB）连接到 LCD 监视器上，使用提供的 RGB 信号电缆（15 针小型 D-SUB 接 15 针小型 D-SUB）。
  从 LCD 监视器的 INPUT 按钮或者遥控器上的 D-SUB 按钮上选择 RGB3。
- 将 RGB4 IN 连接器（BNC）连接到 LCD 监视器上，使用一种信号电缆（15 针小型 D-SUB 接 BNC×5）。从 LCD 监视器的 INPUT 按钮或者遥控器上的 BNC 按钮上选择 RGB4。
- 使用音频输入时，用 AUDIO INPUT 按钮选择 AUDIO IN 1、2、3。
- 用 RGB OUT 端口(15 针小型 D-sub)连接第二 LCD 监视器。(第一 LCD 监视器所选择的 RGB3、RGB4、RGB5（可选）为输出。)
- 音频输出插孔，输出经过选择的音频输入信号。

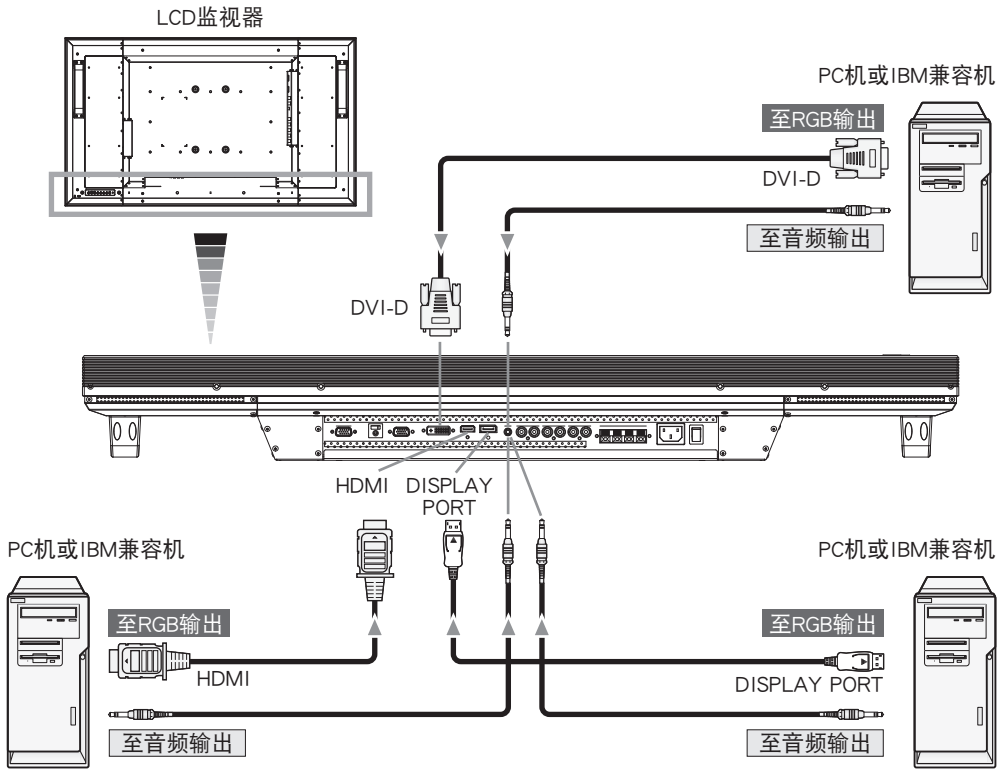


与带数字输出的计算机连接

可以连接带 DVI（交互式数字视频系统）型的数字接口的计算机。

LCD 监视器与带数字输出的计算机连接

- 使用 DVI-D 电缆连接 LCD 监视器上的 RGB2 IN 连接器（DVI-D）。
  从 LCD 监视器上的 INPUT 按钮或者遥控器上的 DVI-D 按钮选择 RGB2。
  将“DVI INPUT MODE”选择为“DVI-PC”。（见第 31 页）
- 使用 HDMI 电缆连接 LCD 监视器上的 RGB1 IN 连接器（HDMI）。
  从 LCD 监视器上的 INPUT 按钮或者遥控器上的 HDMI 按钮选择 RGB1。
  将“HDMI INPUT MODE”选择为“HDMI-PC”。（见第 31 页）
- 使用 Display Port 电缆连接 LCD 监视器上的 RGB6 IN 连接器（DISPLAY PORT）。
  从 LCD 监视器上的 INPUT 按钮或者遥控器上的 DISPLAY PORT 按钮选择 RGB6。
- AUDIO IN 1、2、3 或 HDMI（均为 RCA）能够用于音频输入。连接时，从 AUDIO INPUT（音频输入）按钮中选择 AUDIO 1、2、3 或 HDMI。只有在已经选择了 RGB1 的情况下才能选择 HDMI。
- 经 DVI-D、HDMI 和 DISPLAY PORT 连接器输入的信号，不可经 RGB OUT 连接器输出。

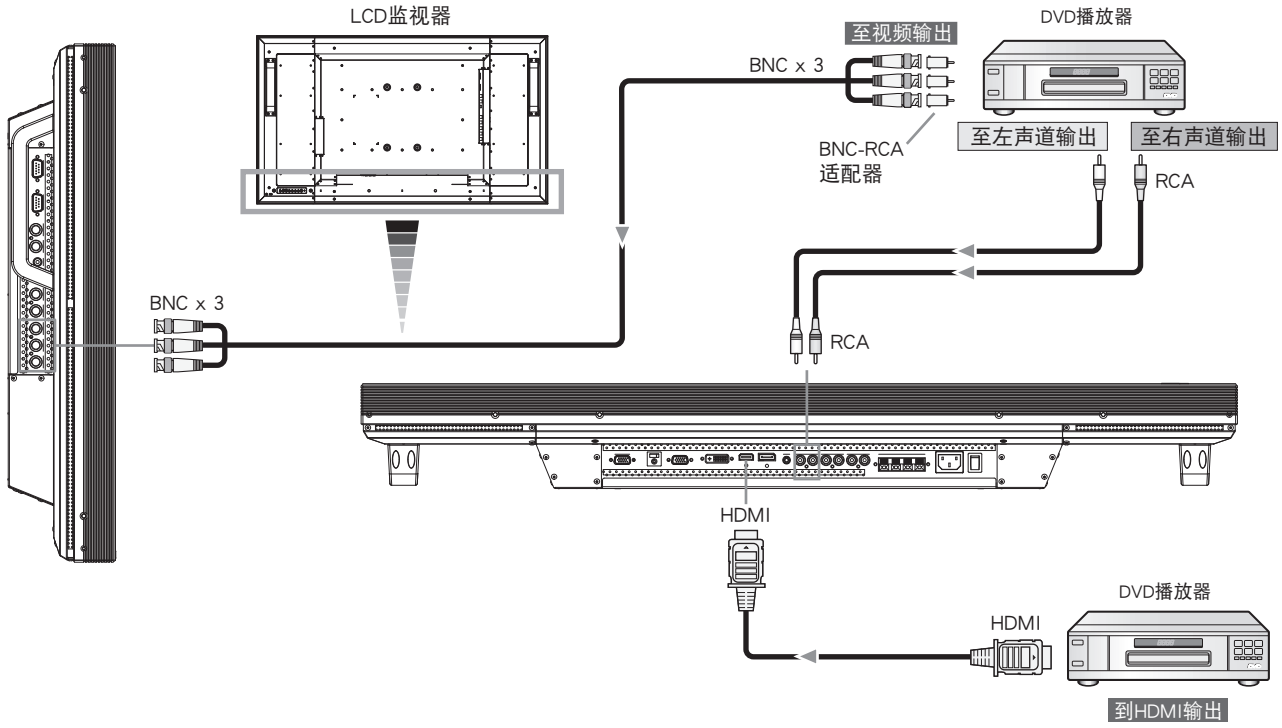


将 DVD 播放器与部件输出/HDMI输出/DVI输出连接

将 DVD 播放器连接到 LCD 监视器上，使你能够得到 DVD 的视频图像。
参照 DVD 播放器的使用者手册，可了解更多的资料。

LCD 监视器与 DVD 播放器连接

- 连接 LCD 监视器上连接器（BNC）中的 DVD/HD IN，使用单独提供的 BNC 连接电缆。与 DVD 播放器连接时，您将需要一个 BNC/RCA 适配器和一段带 RCA 引线插孔的 BNC 连接电缆（另售）。
  从 LCD 监视器上的 INPUT 按钮或者遥控器上的 YPbPr 按钮选择 DVD-HD。
- 使用 HDMI 电缆连接 LCD 监视器上的 RGB1 IN 连接器（HDMI）。
  从 LCD 监视器上的 INPUT 按钮或者遥控器上的 HDMI 按钮选择 RGB1。
  将“HDMI INPUT MODE”选择为“HDMI-HD”。（见第 31 页）
- AUDIO IN 1、2、3 或 HDMI（均为 RCA）能够用于音频输入。连接时，从 AUDIO INPUT（音频输入）按钮中选择 AUDIO 1、2、3 或 HDMI。只有在已经选择了 RGB1 的情况下才能选择 HDMI。



注意：
不确保被连接的 HDMI 设备的正常运行。

连接至VCR/立体声放大器

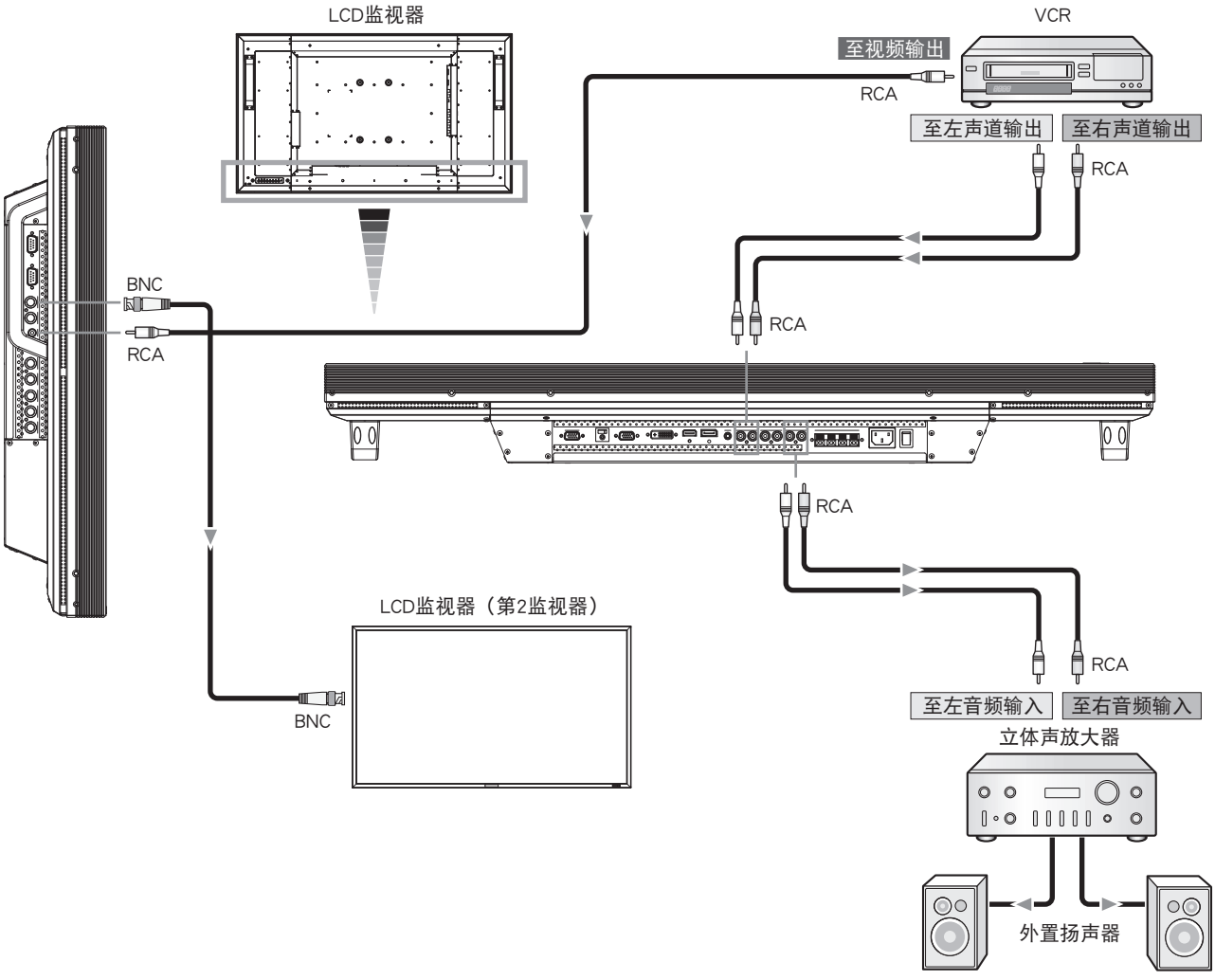
您可以将 VCR/ 立体声放大器连接至 LCD 监视器。更多信息，参考 VCR/ 立体声放大器的用户手册。

将 LCD 监视器连接至 VCR/ 立体声放大器

- 使用视频电缆或者 S- 视频电缆连接 LCD 监视器上的 VIDEO IN 连接器（RCA，BNC 或者 S-VIDEO）。
  使用专用 RCA 电缆或者 S- 视频电缆。
  使用 RCA 电缆连接 LCD 监视器上的 AUDIO IN 连接器（RCA）。
  当连接 RCA 或者 BNC 连接器时，从 LCD 监视器上的 INPUT 按钮或者遥控器上的 VIDEO 按钮选择 VIDEO。
  当连接 S-VIDEO 连接器时，从 LCD 监视器上的 INPUT 按钮或者遥控器上的 VIDEO〈S〉按钮选择 VIDEO〈S〉。
- 请务必先将立体声放大器关闭，再连接放大器和 LCD 监视器。
  用 RCA 电缆（视频电缆）将 AUDIO OUT 连接器与 LCD 监视器连接。
  请正确连接 RCA 电缆（视频电缆）连接器。
  先打开 LCD 监视器，再打开立体声放大器。
- LCD 监视器选择的音频输入信号，来自于 AUDIO OUT 连接器的输出。

注意：

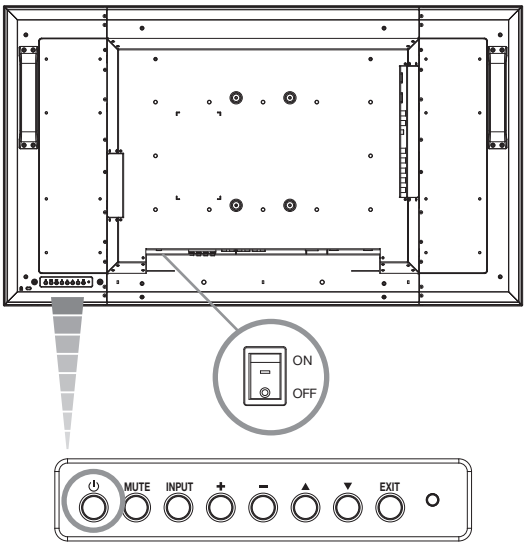
输入视频信号可使用 RCA 或 BNC 连接器。



基本操作

电源的开与关

LCD 的电源指示器一旦由红色转换成绿色时，监视器有以下三种选择：



1. 按总电源的开关。

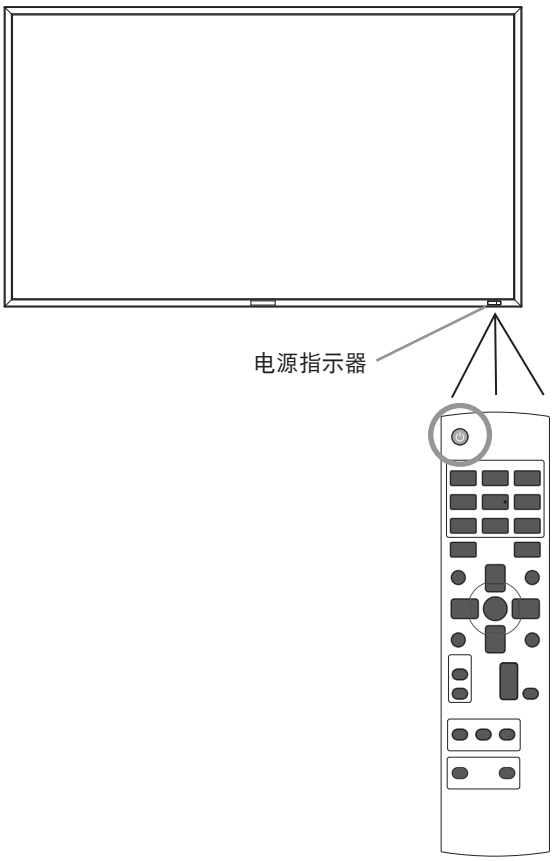
注意：

当总电源使用 LCD 监视器的电源时，遥控器和电源键无法起作用，在使用这两种方式之前，必须打开总电源开关。

2. 按电源键。

注意：

在使用遥控器之前，必须打开 LCD 监视器的总电源开关。



3. 使用遥控器。

注意：

在使用遥控器之前，必须打开 LCD 监视器的总电源的开关。

电源指示器

	状态
电源 开	绿色
电源 关	红色
“定时功能”启动时，电源备用	红色 有绿光闪烁
电源备用	红色，绿色
诊断（检测出有故障）	红色闪烁 * 见第38页的故障排除。

使用电源管理功能

LCD 监视器体现 VESA 许可的 DPM 电源管理功能。
电源管理功能实质上是指自动行使能源节省功能来减少监视器在键盘或鼠标在一段固定时间内没有运行时的电源消耗。
我们在您的新监视器中已经将增加的电源管理功能的设置为“开”的状态。当监视器没有信号输入时也能进入“电源节省模式”。从而能延长监视器的使用寿命并且减少监视器的电源消耗。

选择一个视频信号源

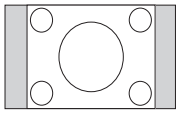
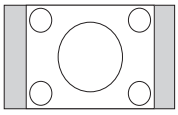
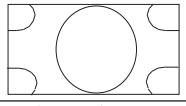
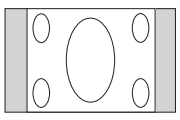
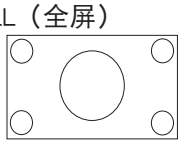
观察一个视频信号源：

使用输入按钮设施 [VIDEO] 。
根据您的视频格式，利用“色彩系统”菜单来设置 [AUTO]、[NTSC]、[PAL]、[SECAM]、[PAL60]、[4.43NTSC]。

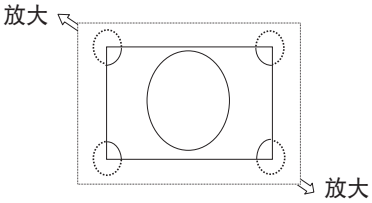
画面尺寸

RGB 1、2、3、4、5、6　FULL → NORMAL → CUSTOM → REAL →

DVD/HD、VIDEO<S>、VIDEO　FULL → NORMAL → DYNAMIC → REAL → CUSTOM →

信号模式	正常尺寸	推荐尺寸
4:3		NORMAL（正常）  DYNAMIC（动感） 
压缩模式		FULL（全屏） 

NORMAL（正常）： 通过由 PC 信号输入的一定宽度比的输入信号显示；在 DVD/HD 或 VIDEO 信号中以 4：3 宽度比的信号显示。
FULL（全屏）： 显示在整个屏幕上。
DYNAMIC（动感）： 在不产生线条的情况下将 4：3 的画面拓展为全屏。（一些线条在拓展过程中被切除）。
CUSTOM（自定义、放大）： 图像的扩展可以超出最合适范围。不显示超出该范围的图像。
REAL： 显示 1×1 像素格式的图像。



画面模式

RGB 1、2、3、4、5、6　HIGHBRIGHT（高亮） → STANDARD（标准） → sRGB

DVD/HD、VIDEO<S>、VIDEO　HIGHBRIGHT（高亮） → STANDARD（标准） → CINEMA（影院模式）

音频源选择开关

您可以使用 AUDIO INPUT 按钮选择音频源。

RGB 1、2、6　HDMI ↔ AUDIO1 ↔ AUDIO2 ↔ AUDIO3

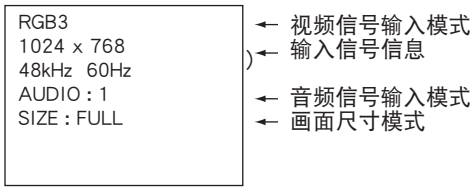
RGB 1、2、6 以外　AUDIO1 ↔ AUDIO2 ↔ AUDIO3

锁定控制模式

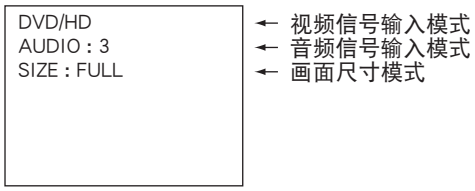
本功能使按键操作失效，因而即使在您按下按键的状态下也不能作调整。
要使按键失效时，同时按下▲和▼键 3 秒钟以上。
要激活按键时，同时按下▲和▼键 3 秒钟以上。

OSD 信息

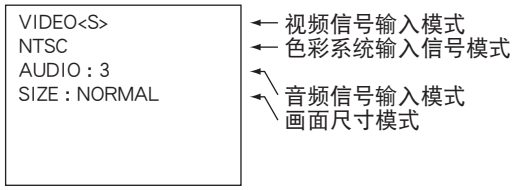
RGB1、2、3、4、5、6



DVD/HD



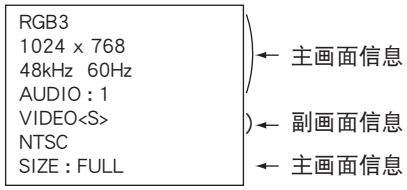
VIDEO<S>、VIDEO



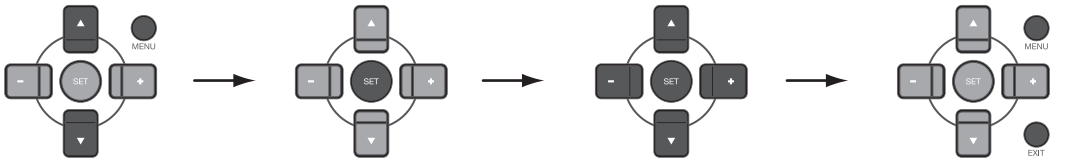
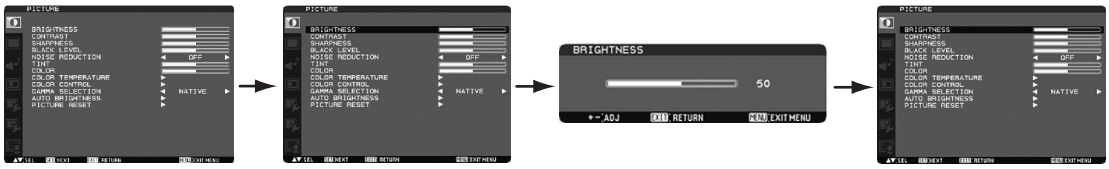
PIP 或者 POP

主：RGB3

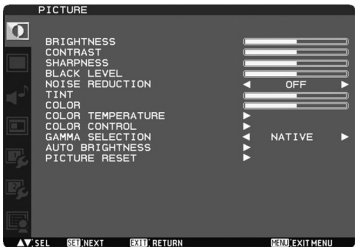
副：VIDEO<S>



OSD（On-Screen Display）屏幕调节

	按MENU键打开主菜单，按UP或DOWN键选择子菜单。	按SET键确定。	按UP或DOWN键，以及PLUS或MINUS键选择功能，或您所希望实施控制的项目。按SET键确定。	按MENU或EXIT键退出。
遥控器				
控制面板	按EXIT键打开主菜单。按UP或DOWN键选择副菜单。	按INPUT键进入所选副菜单。	按UP或DOWN键选择副菜单，按INPUT键进入副菜单，按PLUS或MINUS键进行调整。	按EXIT键返回上一级菜单。在主菜单状态下按EXIT键，退出主菜单。
OSD屏幕				

Main-Menu（主菜单）



画面（PICTURE）

■ 亮度（BRIGHTNESS）

调整图像整体和屏幕背景的亮度。
按“＋”键，增加亮度。
按“－”键，减小亮度。

■ 对比度（CONTRAST）

调整与输入信号相关的图像亮度。
按“＋”键，增加对比度。
按“－”键，减小对比度。

■ 鲜锐度（SHARPNESS）

本功能是数字式的，任何时候均可保持图像的鲜明。
通过调整，可以获得您所希望的清晰或柔和的图像，且可对各种画面模式分别进行设置。
按“＋”键，增加鲜锐度。
按“－”键，减小鲜锐度。

■ 黑电平（BLACK LEVEL）

调整与背景相关的图像亮度。
按“＋”键，提高黑电平。
按“－”键，降低黑电平。
注：sRGB画面模式为标准设置，不能变更。

■ 降噪（NOISE REDUCTION）*：仅INPUT RGB1 (HDMI INPUT MODE：HDMI-HD)、RGB2 (DVI INPUT MODE: DVI-HD)、DVD/HD、VIDEO<S>、VIDEO。

调整降噪的级别。
按“＋”键，提高降噪级别。
按“－”键，降低降噪级别。

■ 色调（TINT）*：仅INPUT RGB1 (HDMI INPUT MODE：HDMI-HD)、RGB2 (DVI INPUT MODE: DVI-HD)、DVD/HD、VIDEO<S>、VIDEO。

调整所有颜色的色彩，或者分别调整红色、洋红、蓝色、青色、绿色和黄色的色彩。
按“＋”键，肤色变得微绿。
按“－”键，肤色变得微紫。

■ 色度（COLOR）*：仅INPUT RGB1 (HDMI INPUT MODE：HDMI-HD)、RGB2 (DVI INPUT MODE: DVI-HD)、DVD/HD、VIDEO<S>、VIDEO。

调整所有颜色的饱和度，或者分别调整红色、洋红、蓝色、青色、绿色和黄色的饱和度。
按“＋”键，增加色彩深度。
按“－”键，减低色彩深度。

■ 色温（COLOR TEMPERATURE）

用于调节色温。
色温下降时，图像变得发红；色温上升时，图像变得发蓝。

■ 色彩控制（COLOR CONTROL）

通过色条调节红、绿、蓝的色彩水平。
R：红色、G：绿色、B：蓝色。

■ 灰度系数选择（GAMMA SELECTION）

选择监视器的灰度系数。
2.2、2.4、OPTION、S 灰度系数、自然（Native）灰度
注：sRGB画面模式为标准设置，不能变更。

至下一页

接上一页

■ 自动亮度（AUTO BRIGHTNESS）

本功能根据环境光线控制屏幕的亮度，以便轻松观看。
另外，本功能还可根据环境光线及屏幕的显示亮度调节屏幕的亮度。

[自动亮度]（AUTO BRIGHTNESS）
LOCAL：自动亮度功能被激活。
REMOTE：自动亮度功能被激活。此外，当共同控制多个监视器时，监视器进入互通模式。（见第33页。）
OFF：本功能无效。

[控制]（CONTROL）
PRIMARY：当同时控制多个监视器时，选择该设置，将监视器配置为主监视器。
SECONDARY：当同时控制多个监视器时，选择该设置以便单独使用监视器或者将监视器配置为次要监视器。

[背景光线]（LIGHT FROM BACK）
YES：当监视器背后的照明设备及窗口具有光源时，选择该设置。
NO：当监视器背后的照明设备及窗口没有光源时，选择该设置。

[背景墙]（BACK WALL）
根据监视器后方至墙壁或者窗户之间的距离，选择以下设置。
FAR：距离为5米或者更远。
NEAR：距离为5米或者更近。

[前传感器]（FRONT SENSOR）
正常使用情况下，选择ON。
OFF：当处于前面板的传感器屏蔽时，选择本设置。

[后传感器]（REAR SENSOR）
正常使用情况下，选择ON。
OFF：当处于后面板的传感器屏蔽时，选择本设置。

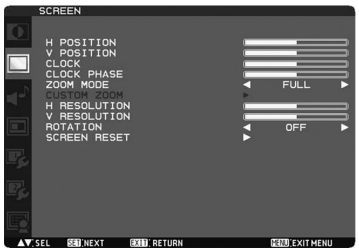
[饱和度]（SATURATION）
ON：根据环境光线调整图像的饱和度。
OFF：不调整图像的饱和度。

[视频检测]（VIDEO DETECT）
ON：屏幕的亮度随着显示内容的不同而改变，以节省监视器的耗电量。
OFF：屏幕亮度不变，耗电量未减少。

■ 画面复位（PICTURE RESET）

选择画面复位可以使您将PICTURE设置恢复到全部OSD设置状态。
选择“YES”并按“SET”键，可以重新存储工厂的预置数据。
按“EXIT”键可以退出，然后返回上一级菜单。

Main-Menu（主菜单）



屏幕（SCREEN）

■ 水平位置（H POSITION）

调整图像在LCD显示区域中的水平位置。
按“＋”键，使屏幕向右移动。
按“－”键，使屏幕向左移动。

■ 垂直位置（V POSITION）

调整图像在LCD显示区域中的垂直位置。
按“＋”键，使屏幕向上移动。
按“－”键，使屏幕向下移动。

■ 时钟（CLOCK）*：仅INPUT RGB3、4、5。

按“＋”键，使屏幕上图像的宽度向右扩展。
按“－”键，使屏幕上图像的宽度向左收缩。

■ 时钟相位（CLOCK PHASE）*：仅INPUT RGB3、4、5。

通过增加和降低该项设置，以改善聚焦、清晰度和图像的稳定性。

■ 缩放模式（ZOOM MODE）

您可以 选择“FULL”、“NORMAL”、“CUSTOM”和“REAL”。（仅 INPUT RGB1、2、3、4、5、6。）您也可以选择“FULL”、“NORMAL”、“DYNAMIC”、“CUSTOM”和“REAL”。（仅 INPUT DVD/HD、VIDEO<S>、VIDEO。）
选择“DYNAMIC”将使屏幕转为全景显示，并伴随有屏幕中央和外侧的扩展发生改变。（图像的上部和下部将由于扩展而被剪切）。
输入 HDTV 信号时，动感图像和全尺寸（FULL size）图像相同。
选择“REAL”时，将显示 1×1 像素格式的图像。

■ 自定义缩放（CUSTOM ZOOM）

当您在屏幕的“ZOOM”模式中选择了“CUSTOM”时，就选择了“自定义缩放（CUSTOM ZOOM）”。
ZOOM：同时扩展水平和垂直尺寸。
HZOOM：仅扩展水平尺寸。
VZOOM：仅扩展垂直尺寸。
H POSITION：按“＋”键向右移动，按“－”键向左移动。
V POSITION：按“＋”键向上移动，按“－”键向下移动。

■ 水平分辨率（H RESOLUTION）*：仅INPUT RGB1、2、3、4、5、6。

通过提高和降低该设置，调整水平方向的尺寸。
按“＋”键，使屏幕上图像的宽度增加。
按“－”键，使屏幕上图像的宽度减小。

■ 垂直分辨率（V RESOLUTION）*：仅INPUT RGB1、2、3、4、5、6。

通过提高和降低该设置，调整垂直方向的尺寸。
按“＋”键，使屏幕上图像的高度增加。
按“－”键，使屏幕上图像的高度减小。

■ 旋转（ROTATION）

旋转OSD屏幕。

OFF

H FLIP

水平旋转

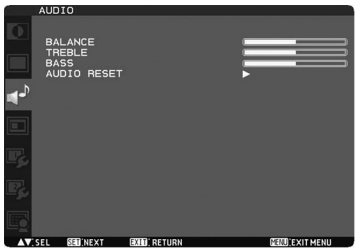
V FLIP

垂直旋转

■ 屏幕复位（SCREEN RESET）

选择屏幕复位可以使您将PICTURE设置恢复到全部OSD设置状态。
选择“YES”并按“SET”键，可以重新存储出厂的预置数据。
按“EXIT”键可以退出，然后返回上一级菜单。

Main-Menu（主菜单）



音频（AUDIO）

■ 平衡（BALANCE）

调整左右声道音量的平衡。
按“＋”键，使立体声的音量配置向右移动，左侧的音量将减小。
按“－”键，使立体声的音量配置向左移动。

■ 高音（TREBLE）

用于提升或减低高频声音的音量。
按“＋”键，提升高音的音量。
按“－”键，减低高音的音量。

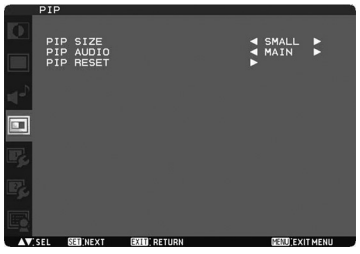
■ 低音（BASS）

用于提升或减低低频声音的音量。
按“＋”键，提升低音的音量。
按“－”键，减低低音的音量。

■ 音频复位（AUDIO RESET）

选择音频复位可以使您将AUDIO设置恢复到全部OSD设置状态。
选择“YES”并按“SET”键，可以重新存储出厂的预置数据。
按“EXIT”键可以退出，然后返回上一级菜单。

Main-Menu（主菜单）



画中画（PICTURE IN PICTURE）

注：当屏幕尺寸为“CUSTOM”或“REAL”时，“PIP（画中画）”和“POP（画外画）”模式不起作用。

■ 画中画尺寸（PIP SIZE）

进入“画中画”（PIP）模式，选择插入画面的尺寸。
可选“大”、“中”和“小”。

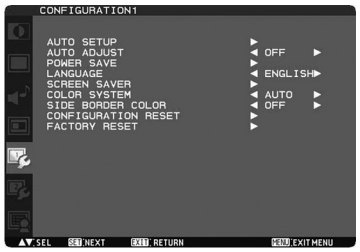
■ 画中画音频（PIP AUDIO）

选择画中画的音频源。
选择“MAIN AUDIO”时，您听到的是主画面的声音，而选择“PIP AUDIO”时，您听到的是副画面的声音。

■ 画中画复位（PIP RESET）

选择 PIP 复位可以使您将 PIP 设置恢复到全部 OSD 设置状态。
选择“YES”并按“SET”键，可以重新存储出厂的预置数据。
按“EXIT”键可以退出，然后返回上一级菜单。

Main-Menu（主菜单）



配置1（CONFIGURATION 1）

■ 自动设置（AUTO SETUP）*：仅INPUT RGB3、4、5。

按“SET”键，可以自动调整屏幕尺寸、水平位置、垂直位置、时钟、时钟相位、白电平与黑电平。
按“EXIT”键，可以取消 AUTO SETUP 的操作，然后返回上一级菜单。

■ 自动调整（AUTO ADJUST）*：仅INPUT RGB3、4、5。

选择自动调整的 ON/OFF。
在变更定时设置时选择了“ON”，将对水平位置、垂直位置和时钟相位进行自动调整。

■ 节电模式（POWER SAVE）

选择 RGB 的状态为“ON”时，在 RGB1、2、3、4、5、6 同步消失后，监视器进入电能管理模式。
选择 VIDEO 的状态为“ON”时，在 DVD/HD、VIDEO<S> 和 VIDEO 的输入信号消失后，监视器进入电能管理状态，延迟时间约为 10 分钟。

■ 语言（LANGUAGE）

OSD 控制菜单有 8 种语言可供选择。
（英语、德语、法语、西班牙语、意大利语、瑞典语、汉语和日语）

■ 屏幕保护（SCREEN SAVER）

选择“SCREEN SAVER”功能可以降低“图像残留”的风险。
灰度系数（GAMMA）：当选择“ON”时，屏幕的灰度系数将被更改并予以固定。
冷却风扇（COOLING FAN）：当设置为“ON”时，内置的冷却风扇始终运转。当选择“AUTO”时，当内部温度超过运行确保范围时，内置冷却扇开始自动旋转。
亮度（BRIGHTNESS）：当选择“ON”时，亮度会降低。
移动（MOTION）：图像会定期略微扩展并向 4 个方向（上、下、右、左）移动。（需要对移动的时间进行设置）。
移动的范围约为偏离原始位置＋/－10mm。
请对重要的信息进行定位，例如屏幕图像 90%区域内的文字等。
关于此功能，请参见第 32 页的“图像残留”。
当“MOTION”处于动作状态时，“PIP”和“STILL”功能将失效。

■ 色彩系统（COLOR SYSTEM）*：仅INPUT VIDEO<S>、VIDEO。

根据您的输入视频格式选择色彩系统。
AUTO：自动选择 NTSC、PAL、SECAM、PAL60 或 4.43NTSC。
NTSC：指定选择 NTSC。
PAL：指定选择 PAL。
SECAM：指定选择 SECAM。
PAL-60：指定选择 PAL-60。
4.43NTSC：指定选择 4.43NTSC。

■ 边框颜色（SIDE BORDER COLOR）

用于调整显示于4：3图像两侧边框的黑色区域的亮度。
可以选择为OFF、50或100。

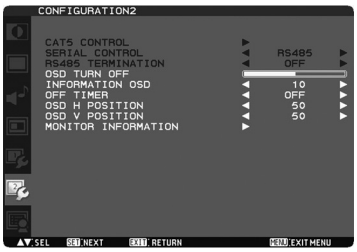
■ 配置复位（CONFIGURATION RESET）

选择 CONFIGURATION RESET 可以使您将所有的配置设置复位。
选择“YES”并按“SET”键，可以重新存储出厂的预置数据。
按“EXIT”键可以退出，然后返回上一级菜单。

■ 出厂预置（FACTORY RESET）

选择“YES”可以使您将画面（PICTURE）、屏幕（SCREEN）、音频（AUDIO）、配置 1 和 2（CONFIGURATION 1、2）以及高级选项（ADVANCED OPTION）重新设置为出厂的设置值。【语言（LANGUAGE）、日期和时间（DATE AND TIME）、HDMI INPUT 模式（HDMI INPUT MODE）、DVI INPUT 模式（DVI INPUT MODE）、DDC/CI 通信功能（DDC/CI）、监视器 ID（MONITOR ID）、和程序（SCHEDULE）除外】
选择“YES”并按“SET”键，可以重新存储出厂的预置数据。按“EXIT”键可以退出，然后返回上一级菜单。

Main-Menu（主菜单）



配置2（CONFIGURATION 2）

■ **CAT5控制（CAT5 CONTROL）***：仅在安装有选购的CAT5 Rx BOX时可选。

[CAT5电缆长度]（CAT5 CABLE LENGTH）
选择电缆长度，直接自动确定所有调整值的缺省值。
选择与实际电缆长度最接近的长度。

[CAT5 EQ]
进行调整，以便使显示字母及图像物体的污迹和污渍最小化。

[CAT5 R-GAIN、G-GAIN、B-GAIN]
当显示图像为黑色时，增加每一个值。
当显示的白色未达到预期值时，调整R-GAIN和B-GAIN值。

[CAT5 R-SKEW、G-SKEW、B-SKEW]
调整每一个值，使显示字母和图形对象的颜色偏差最小化。

■ **连续控制（SERIAL CONTROL）***：仅在安装有选购的CAT5 Rx BOX时可选。

选择连续通讯功能的通讯界面（RS232或者RS485）。
信号电缆连接，见第35页。

■ **RS485终端（RS485 TERMINATION）***：仅在安装有选购的CAT5 Rx BOX时可选。

打开或者关闭RS-485界面的终端电阻。
ON：选择本设置，以便单独使用监视器或者当连接多个监视器时，设定连接侧的监视器。
OFF：选择本设置，以便连接多个监视器时，设定非连接侧的监视器。

■ **OSD菜单关闭（OSD TURN OFF）**

只要在使用，OSD控制菜单就将始终显示。在OSD的关闭子菜单中，您可以选择在最后一次击键后，监视器要经过多长的时间才关闭OSD控制菜单。
可供选择的预置时间为5～120秒。

■ **OSD信息（INFORMATION OSD）**

选择是否显示OSD信息。
在输入信号或信号源改变，或显示警告信息（如无信号或超出范围）时，将显示OSD信息。
可供选择的时间为1～10秒。

■ **定时关机（OFF TIMER）**

选择定时关机模式的ON/OFF。
在OFF TIMER菜单中，您可以预置监视器自动关机的时间。
可供选择的时间在1～24小时之间。
设置了自动关机后，程序（SCHEDULE，见第31页）设置将失效。

■ **OSD水平位置调整（OSD H POSITION）**

调整OSD菜单的水平位置。

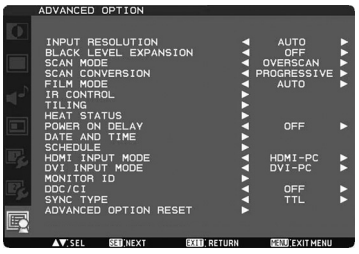
■ **OSD垂直位置调整（OSD V POSITION）**

调整OSD菜单的垂直位置。

■ **监视器信息（MONITOR INFORMATION）**

显示您的监视器型号和系列号。

Main-Menu（主菜单）



高级选项（ADVANCED OPTION）

■ 输入分辨率（INPUT RESOLUTION）*：仅INPUT RGB3、4、5。

选定下述与时间相关的输入信号分辨率：1024×768、1280×768和1360×768。
AUTO：自动确定分辨率。
1024×768：将分辨率确定为1024×768。
1280×768：将分辨率确定为1280×768。
1360×768：将分辨率确定为1360×768。
此功能在将电源切断后重新打开时有效。

■ 黑电平扩展（BLACK LEVEL EXPANSION）*：仅INPUT RGB1 (HDMI INPUT MODE: HDMI-HD)、RGB2 (DVI INPUT MODE: DVI-HD)、DVD/HD、VIDEO<S>、VIDEO。

从“关(OFF)”、“中(MIDDLE)”和“高(HIGH)”中选择黑电平的程度。
在向低于黑色截止电平的方向扩展时，请适度调整OSD菜单中的“BLACK LEVEL”。

■ 扫描模式（SCAN MODE）*：仅INPUT RGB1 (HDMI INPUT MODE: HDMI-HD)、RGB2 (DVI INPUT MODE: DVI-HD)、DVD/HD、VIDEO<S>、VIDEO。

变更图像的显示区域。
OVERSCAN：将显示区域设置为约95%。
UNDERSCAN：将显示区域设置为约100%。
注意：当开启 PIP 功能时，SCAN MODE 强制设定为 OVERSCAN。

■ 扫描转换（SCAN CONVERSION）*：仅INPUT RGB1 (HDMI INPUT MODE: HDMI-HD)、RGB2 (DVI INPUT MODE: DVI-HD)、DVD/HD、VIDEO<S>、VIDEO。

选择 IP（Interlace to Progressive，即隔行扫描到逐行扫描）转换功能。
逐行扫描（PROGRESSIVE）：启用 IP 功能，将隔行扫描信号转换为逐行扫描信号，常规设置使用此种模式。
隔行扫描（INTERLACE）：不启用 IP 功能。

■ 影片模式（FILM MODE）

选择影片模式功能。
AUTO：启用影片模式功能。此模式更适用于由24帧/秒的信号源转换成DVD Video的电影。
我们推荐在“扫描转换（SCAN CONVERSION）”中选择“逐行扫描（PROGRESSIVE）”。
OFF：不启用影片模式功能。此模式更适用于广播或VCR信号源。
注意：当FILM MODE为AUTO时，设定SCAN CONVERSION为PROGRESSIVE。

■ 红外线控制（IR CONTROL）

在多台MDT421S监视器通过RS－232C相连接时，选择无线遥控器的操作模式。
用▲、▼按钮在下述四个模式中进行选择，并按SET按钮确定选择的模式。
NORMAL：监视器将由无线遥控器正常控制。
PRIMARY：将这些通过RS－232C连接的多台监视器中的第一台MDT421S监视器指定为“PRIMARY”。
SECONDARY：将这些通过RS－232C连接的多台监视器中，除第一台以外的其余MDT421S监视器指定为“SECONDARY”。
LOCK：禁用通过红外线遥控器进行的监视器控制。
按 “DISPLAY”按钮5秒或以上，这个设置会返回“正常”。

■ 方格矩阵（TILING）

方格矩阵（TILING）显示多个屏幕。此功能提供了一个多达25个监视器的大屏幕。
这大屏幕可以在水平方向和垂直方向各分割为5台监视器。
这要求您将PC机的输出信号通过分配器传输到各台监视器。
H MONITORS：选择水平分割的监视器台数。
V MONITORS：选择垂直分割的监视器台数。
POSITION：选择一个用于扩展屏幕的部位。
FRAME COMP：与“方格矩阵”相配合，对“方格面板”的宽度作出补偿，以准确地显示图像。
ENABLE：选择“YES”，监视器将扩展所选定的部位。
当“TILING”动作时，“PIP”和“STILL”功能无效。

至下一页

接上一页

■ 散热状态（HEAT STATUS）

冷却风扇、亮度和温度的状态信息。
当内部温度超过警戒值时，冷却风扇将开始工作。
在这种情况下，将在屏幕上显示警告信息。

■ 开机延迟（POWER ON DELAY）

将延迟时间从“待机（standby）”调整为“开机（power on）”模式。
“POWER ON DELAY”时间可选取为 0-50 秒。

■ 日期和时间（DATE AND TIME）

调整内置时钟的当前日期和时间。
当您使用“程序（SCHEDULE）”功能时，应该对本功能进行设置。

■ 程序（SCHEDULE）

编制监视器的工作程序。
安排监视器在 1 周内开机、关机的时间和日期，并对输入端口进行设置。
除了“EXIT”之外，此 OSD 不能移除。
（参见第 32 页的“如何设置定时”，以获取进一步的信息。）

■ HDMI INPUT模式（HDMI INPUT MODE）

当 PC 机或其它计算机设备通过 HDMI 连接时选择“HDMI-PC”。
当具备 HDMI 输出的 DVD 播放器通过 HDMI 连接时选择“HDMI-HD”。

■ DVI INPUT模式（DVI INPUT MODE）

当 PC 机或其它计算机设备通过 HDMI 连接时选择“DVI-PC”。
当具备 HDMI 输出的 DVD 播放器通过 HDMI 连接时选择“DVI-HD”。

■ 监视器ID（MONITOR ID）

用于遥控的标识符号码（ID numbers）是分配给通过RS－232C电缆多台连接的MDT421S监视器的。
标识符号码（ID numbers）的可选范围为1～26。

■ DDC/CI通信功能（DDC/CI）

用于开启或关闭DDC/CI通信功能。常规设置为开启（ON）。

■ 同步的种类（SYNC TYPE）*：仅INPUT RGB3、4。

选择“0.3V”则为 0.3 复合同步。
选择“TTL”则为 TTL 同步。

■ 高级选项复位（ADVANCED OPTION RESET）

选择 ADVANCED OPTION 复位可以使您将 ADVANCED OPTION 设置恢复到全部 OSD 设置状态，日期和时间、程序、HDMI INPUT 模式、DVI INPUT 模式、监视器 ID、DDC/CI 通信功能除外。
选择“YES”并按“SET”键，可以重新存储出厂的预置数据。
按“EXIT”键可以退出，然后返回上一级菜单。

注意

< 图像残留 >

LCD 技术可能会出现一个被称为“图像残留”，的现象。当前一个图像的余像保留在屏幕上时即发生了“图像残留”。与 CRT 监视器不同，LCD 监视器的图像残留通常不是永久性的，但也应避免长时间显示一个不变的图像。不然将会有半永久性影响。为消除图像残留问题只要显示出前一个图像，就要关闭监视器。例如，如果一个图像在监视器上显示了一个小时，而余像保留下来，则应关闭监视器一个小时来消除此图像。
与所有个人显示设备一样，我们建议显示活动的图像只要屏幕闲置一定时间即进入屏幕保护程序，或在不使用时关闭显监视器。

请设置“POWER SAVE（节电模式）”、“SCREEN SAVER（屏幕保护）”、“DATE AND TIME（日期和时间）”和“SCHEDULE（程序）”功能来进一步降低余像的危害。

< 延长公开显示功能的使用寿命 >

LCD 面板的影像残留现象

当 LCD 面板长时间进行工作时，在 LCD 内部的电极附近会产生一定的电荷，当前一个图像的余像保留在屏幕上时即发生了“图像残留”。（图像残留）。
图像残留不是永久性的，当一个固定的图像显示的时间过长，则 LCD 内部的离子杂质便会沿着显示的画面聚积起来，这样就会图像便会永久地残留下来。（影像残留）

建议

为避免影像残留的快速形成，并且延长 LCD 的使用寿命，我们做出下列建议：

1. 应避免长时间显示一个不变的图像，尽量在短周期内改变图像。
2. 在不使用 LCD 时，应通过遥控装置将 LCD 关闭，或者启动监视器的电源管理功能或定时功能。
3. 应尽量降低环境温度。
   当 LCD 表面安装了保护面板（玻璃，丙烯材质），或将其装在盒子或遮蔽物中，或者将监视器进行堆砌后，请使用监视器内部的温度传感器。
   为了减少环境温度，应该将监视器的状态设置为“低亮”并且通过使用“屏幕保护模式”启动冷却风扇。
4. 请使用“屏幕保护模式”。

< 如何设置定时 >

使用“SCHEDULE（程序）”功能可以让您设置 LCD 监视器被启动时的七种不同定时间隔。
您可以选择监视器开机和关机的时间，一周中哪一天启动监视器，以及在每个定时的启动阶段，监视器将使用哪一个输入源。定时数字旁边方框中的标注记号表示所选定时已生效。
在选择要设定的定时时，用上 / 下箭头移动定时的编号（1 至 7）。
用（＋）和（－）键在详细定时内水平移动光标。用（▲）和（▼）键增加时间并选择输入端口。“SET”键用于进行选定。
如果您建立了一项程序，但不想在电源开启时使用，在“ON（开）”时间表中选择“--”。
如果您不想使用关机时间。请在 OFF 时段内选择“--”。
如果没有选择任何输入（“--”显示在输入点内），则会使用前一个定时的输入。
定时中的 EVERY DAY（每天）选择优先级高于设置的每周其它定时。
当定时时间有重叠时，设定的开机时间优先级高于设定的关机时间。
如果两个设定的时间相同，则编号最高的时间具有优先权。
当设置了“OFF TIMER（定时关机）”（见第 29 页）时，定时功能会被禁用。

<PIP、POP 和 SIDE BY SIDE>

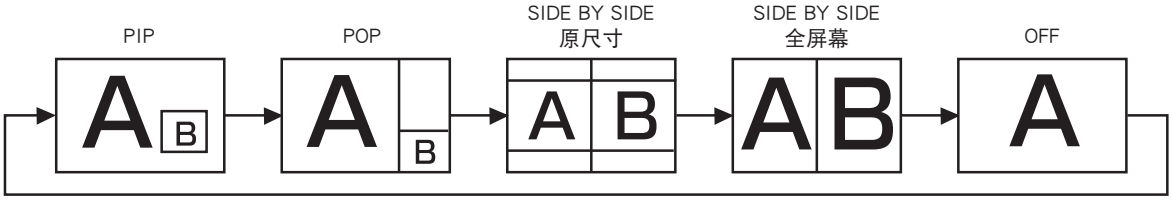
在下表所示组合输入信号的情况下，可起动“PIP”和“POP”模式功能。但当画面尺寸为“CUSTOM”（自定义）或“REAL”（实时）时，这些模式将不能起动。

副画面 / 主画面	RGB1 (HDMI)	RGB2 (DVI-D)	RGB3 (D-SUB)	RGB4 (BNC)	RGB5* (CAT5)	RGB6 (DISPLAY PORT)	DVD/HD (YPbPr)	VIDEO<S>	VIDEO
RGB1 (HDMI)	×	×	×	×	×	×	×	○	○
RGB2 (DVI-D)	×	×	×	×	×	×	×	○	○
RGB3 (D-SUB)	×	×	×	×	×	×	×	○	○
RGB4 (BNC)	×	×	×	×	×	×	×	○	○
RGB5* (CAT5)	×	×	×	×	×	×	×	○	○
RGB6 (DISPLAY PORT)	×	×	×	×	×	×	×	○	○
DVD/HD (YPbPr)	×	×	×	×	×	×	×	○	○
VIDEO<S>	○	○	○	○	○	○	○	×	×
VIDEO	○	○	○	○	○	○	○	×	×

○：支持
×：不支持

*：当安装有选购的CAT5 Rx BOX时，RGB5 有效。

按遥控器上的 “PIP ON/OFF” 键就可如下图所示切换 “PIP”模式、“POP”模式与 “SIDE BY SIDE”模式。



关于“PIP”、“POP”模式的分辨率（参考）

画中画尺寸（PIP SIZE）◁ 小 ▷ : 450 像素 X 338 像素
◁ 中 ▷ : 675 像素 X 450 像素
◁ 大 ▷ : 900 像素 X 675 像素

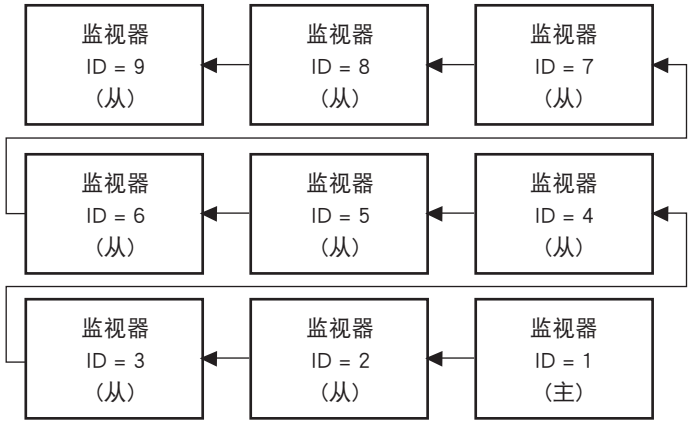
画外画尺寸（POP SIZE） : 450 像素 X 338 像素

< 自动亮度功能的辅助资料 >

同时控制多个监视器

在这种情况下，当使用重复功能时，通过将连接的多个监视器中某一个监视器的亮度传感器的检测结果进行分配，而控制自动亮度功能。

1. 使用 RS-232C 或者 CAT5 电缆连接多个监视器，如下例所示：



主：设置的主监视器用于监测外部光线（监视器 ID 是“1”。）
从：由主监视器控制的监视器（监视器 ID 不是“1”。）

2. 使用 MONITOR ID 给每一个连接的 MDT421S 分配一个监视器 ID（MONITOR ID）。（见第 31 页。）
   监视器的 ID 可为 1 至 26 的任一个数字。
   主监视器的 ID 为“1”，从属监视器的 ID 不为“1”。
   建议按照 1、2、3 顺序给监视器分配 ID。
3. 如下设置 OSD 屏幕（图画）的自动亮度（AUTO BRIGHTNESS）。

	自动亮度（AUTO BRIGHTNESS）	控制（CONTROL）
主监视器	本地	主
从属监视器	遥	从

使用计算机控制监视器

当使用计算机控制监视器时，必须准备用于自己控制的应用软件程序。

1. 使用 RS-232C 电缆，连接如上所示主监视器的 RS-232C IN 连接器和计算机的 RS-232C 连接器。
   或者，使用 CAT5 电缆，通过 CAT5-Tx 盒将计算机的 RS-232C 连接器连接至主监视器的 CAT5 IN 监视器。
2. 使用 MONITOR ID 给每一个连接的 MDT421S 分配监视器 ID（MONITOR ID）（见第 33 页的第 2 步）。
3. 如下设置 OSD 屏幕（图像）上的自动亮度（AUTO BRIGHTNESS）。

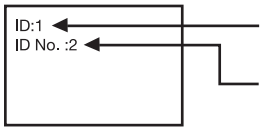
	自动亮度（AUTO BRIGHTNESS）	控制（CONTROL）
主监视器	遥	从
从属监视器	遥	从

4. 如需详细通讯指令规格，请与经销商联系。

< 遥控编码功能 >

通过使用 RS－232C 电缆将多台 MDT421S 监视器进行连接，您可以用一个遥控器控制任何一台或全部监视器。

1. 使用 MONITOR ID，给多台连接的监视器中的每一台 MDT421S 监视器分配一个任意的 ID 码。
   ID 码的可选范围为 1 ～ 26。
   推荐从 1 开始，并递增连续分配 ID 码。
2. 其遥控模式是将第一台 MDT421S 监视器指定为“PRIMARY”，而将其余监视器指定为“SECONDARY”。
3. 当您将遥控器指向“PRIMARY”监视器上的遥控信号传感器，并且按遥控器的“DISPLAY”键时，选择 ID 的 OSD 菜单将显示在屏幕的左上方。



现时所显示的监视器ID码。

用遥控器上的＋/－键选择您准备对之实施控制的监视器ID码。
您准备对之实施控制的监视器ID码显示在其屏幕的左上方。
选择“ALL”，您可以对所有多台连接的监视器实施控制。

4. 将遥控器指向“PRIMARY”监视器上的遥控信号传感器。
   带有您所选择的 ID 码的 OSD 菜单将显示在监视器上。

注意：

在选择 ID 的 OSD 菜单显示于“PRIMARY”监视器上后，再次按压遥控器上的“DISPLAY”键以退出选择 ID 的 OSD 菜单，然后对所选定的监视器实施控制。

注意：

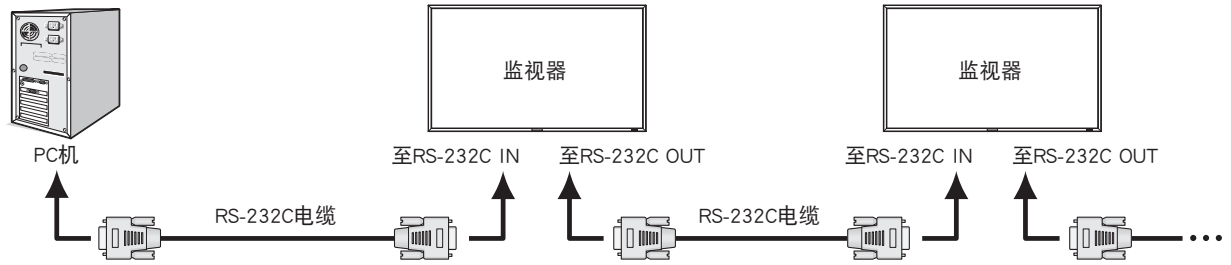
假如您在设置遥控模式时出错，以及在无法实施遥控操作的情况下，可以按压监视器控制面板上的任意键以显示 OSD 菜单屏幕，并使用高级选项（ADVANCED OPTION）更改遥控模式。按下遥控器上的“DISPLAY”键，并保持 5 秒或更长些，遥控模式将被初始化到“NORMAL”状态。

通过 RS-232C/RS-485 遥控器控制 LCD 监视器

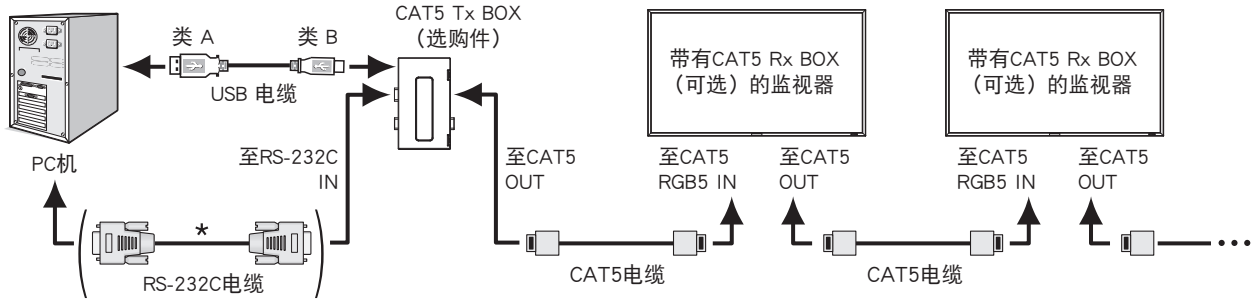
通过 CAT5 Tx BOX（可选）和 CAT5 Rx BOX（可选）使用 RS-232C 电缆或 CAT5 电缆连接，计算机可以控制 LCD 监视器。
被 PC 机所控制的功能是：
- 电源的开 / 关
- 输入信号之间的转换器。

连接

与 RS-232C 连接（RS-232C 电缆须使用其反向型号的电缆。）



与 CAT5 RS-485 连接（使用直式 CAT5 电缆）



* 当使用USB COM口时，可不必使用该连接。

注意：
如果你的PC机(IBM或IBM兼容机)仅配置了一个25针的控制器,则要求配一个25针的转换器。仔细连接各配置。

1）接口

PROTOCOL	RS-232C/RS-485(CAT5)
BAUD RATE	9600 [bps]
DATA LENGTH	8 [bits]
PARITY BIT	NONE
STOP BIT	1 [bits]
FLOW CONTROL	NONE

这种 LCD 监视器使用符合 RS-232C 的 RXD，TXD 和 GND 电线。

2）控制命令示意图

这种命令是由地址程序，功能程序，日期程序和结束程序所构成。对每种功能，命令的程度是不同的。

注意：
下列显示了基本的配置要求，包括一台电脑和一台监视器（一对一连接）。控制多台监视器时，请提前联系当地经销商。

	地址码	功能码	数据码	结束码
HEX	30h 30h	Function	Data	0Dh
ASCII	‘0’ ‘0’	Function	Data	↵

[地址码] 30h 30h（在 ASCII 码的时候，‘0’‘0’）固定
[功能码] 各控制动作有固有的代码。
[数据码] 各控制动作有固有的数据（编号），但也有不指定的时候。
[结束码] 0Dh（在 ASCII 码的时候，‘↵’）固定

3）控制顺序

（1）从 PC 机发送指令给本机（请在指令与指令之间留有 600ms 以上的间隔）。

（2）本机在收到编码后 600ms 以内 * 将发送一个返回指令。如果未能正常收到编码，则本机将不会发送返回信号。

（3）如果命令已经发送且已经执行或未执行，PC 机检查命令并确认。

（4）监视器发送与返回的程序不同的程序，当通过 RS-232C 有一控制顺序时，拒绝 PC 机中磁盘的其他程序。

*：返回指令的发送时间在某种情况下可以延迟 (改变输入端的信号期间等)。

[举例] 按下电源键（‘’ 是 ASCII 码）

从PC机发出命令	LCD监视器的状态码	意思
30 30 21 0D ‘0’ ‘0’ ‘!’ ‘↵’		命令接通电源
	30 30 21 0D ‘0’ ‘0’ ‘!’ ‘↵’	收到命令

4）操作程序

操作程序执行 LCD 监视器的基本操作设置。

当改变信号时，不能操作：

操作	ASCII	HEX
电源打开	!	21h
电源关闭	"	22h
输入RGB1	_r1	5Fh 72h 31h
输入RGB2	_r2	5Fh 72h 32h
输入RGB3	_r3	5Fh 72h 33h
输入RGB4	_r4	5Fh 72h 34h
输入RGB5★	_r5	5Fh 72h 35h
输入RGB6	_r6	5Fh 72h 36h
输入VIDEO	_v1	5Fh 76h 31h
输入DVD/HD	_v2	5Fh 76h 32h
输入S-VIDEO★★	_v3	5Fh 76h 33h

- POWER OFF 命令在电源打开后 1 分钟内不会起效。
- POWER ON 命令在电源关闭后 1 分钟内不会起效。

★ 当安装有选购的 CAT5 Rx BOX 时，RGB5 有效。

★★S-VIDEO 仅为 SEPARATE（分离）。

5）Read 命令

主计算机将不带数据代码的命令发送到监视器。

接收到此命令后，监视器将带当前状态数据代码的命令反馈到主计算机。

[举例] 当主计算机询问监视器的电源状态，监视器的状态为电源 on 状态。

来自计算机的命令	来自监视器的命令	命令细节
30 30 76 50 0D ‘0’‘0’‘v’‘P’[输入]		询问监视器的电源状态。
	30 30 76 50 31 0D ‘0’‘0’‘v’‘P’‘1’[输入]	监视器为电源on。

Read 命令的结构

			ASCII		HEX	
			功能	数据（接收）	功能	数据（接收）
电源	ON		vP	1	76 50	31
	OFF（待机）		vP	0	76 50	30
输入	RGB-1(HDMI)		vI	r1	76 49	72 31
	RGB-2(DVI-D)		vI	r2	76 49	72 32
	RGB-3(D-SUB)		vI	r3	76 49	72 33
	RGB-4(BNC)		vI	r4	76 49	72 34
	RGB-5★(CAT5)		vI	r5	76 49	72 35
	RGB-6(DISPLAY PORT)		vI	r6	76 49	72 36
	Video（待机）		vI	v1	76 49	76 31
	DVD/HD		vI	v2	76 49	76 32
	S-VIDEO		vI	v3	76 49	76 33
画面模式	HIGHBRIGHT(高亮)		vM	p1	76 4D	70 31
	STANDARD（标准）		vM	p2	76 4D	70 32
内部监视器的温度	主板周围	分辨率1℃	tc1	(ex.) +25	74 63 31	2B 20 32 35
	变频PC板周围	分辨率1℃	tc2	(ex.) +31	74 63 32	2B 20 33 31

★：当安装有选购的CAT5 Rx BOX时，RGB-5 有效。

特征

Color Control Systems：
能够调整画面的颜色，并可选择您所喜欢的颜色精度，使画面具有多样的标准。

sRGB Color Control：
新型的画面颜色管理标准，专门用于作为计算机和其它机器的监视器时使用。sRGB 标准基于已准确设置的颜色上，使得颜色的显示和背景色充分与其它颜色标准融合。

OSD (On-Screen-Display) Controls：
使用画面显示的菜单，使您能够方便简捷调整画面上所有的要素。

Plug and Play：
Microsoft® 的 Windows® 95/98/Me/2000/XP 操作系统和 Windows Vista® 设置可以使监视器直接将其容量（如：屏幕尺寸和支持的分辨度）输入至电脑，而自动优化显示性能。

Intelligent Power Manager System［智能电源管理系统］：
提供新的电源节约方法，节约三分之二的控制器能源消耗。
多频自动调节扫描频率，显示所需要的分辨率。

Multiple Frequency Technology：
自动调节监视器的显卡扫描频率，以显示所要求的决定。

FullScan Capability：
容许在大多数分辨率使用整个屏幕区域，而大大扩大图像尺寸。

Wall Mounting Interface：
容许控制器安装在墙上或支架上，或使用任何第三部分的允许的器件。MITSUBISHI 的安装接口符合北美 UL1678 标准规定。

TILING, Frame compensation：
可准确显示复数个多屏幕画面，并补充边缘部分。

ZOOM：
能够向水平方向或垂直方向随意扩大。

Self-diagnosis：
如果内部发生故障，将显示故障信息。

CAT5 长电缆补偿：
CAT5 长电缆补偿可以防止由于电缆过长而导致的图像质量下降（颜色转移和昏暗的信号）。

故障排除

无图像
- 信号线应当与显示卡 / 计算机完全连接。
- 显示卡应当完全置于插槽内。
- 正面板电源开关和计算机电源开关应处于 ON 状态。
- 确认显示卡或使用的系统选择的支持模式（请查阅显示卡或系统手册来改变图像模式）。
- 检查控制器和显示卡之间的兼容性及安装。
- 检查信号线连接器为弯曲或接连式插头。
- 连接 HDCP 设备后如果显示屏上不显示任何图像，关闭并重新打开设备的电源。

电源按键无响应
- 拔掉 AC 电源线，然后再插上重新使用。

图像残留
- 图像残留即当控制器关闭时，荧光屏上余光等的保留时间，LCD 的图像保留不是永久的。如果图像在监视器上一个小时后仍有图像的余光等，监视器应被关闭一个小时来除去图像。

注意：
对所有个人显示装置，三菱电机株式会社推荐当屏幕空闲时，在正常间隔时使用屏幕保护装置。

图像不稳定，不清晰或晃动明显
- 信号线应当完全接在计算机上。
- 通过增加或减少时间相位总和，使用 OSD 屏幕控制焦点和调节监视器。
  如果显示模式改变，OSD 图像调节装置需要再调节。
- 检查控制器和监视器的兼容和连接信号。
- 使其非隔行扫描，并使用 60Hz 的刷新率。

图像略呈淡绿色
- 检查是否选择 DVD/HD 输入连接口。

控制器上的 LED 不亮（看不见红色或绿色）
- 电源开关应在 ON 位置，电源线应能连接。
- 确认计算机不在节电模式（触摸键盘或鼠标）。

监视器的红色 LED 闪亮
- 可能发生了某种故障。请联系您附近的三菱电机服务处。

监视器图像不能按大小排列
- 使用 OSD 屏幕控制增加或减少时钟总数。
- 确认监视器上选择的支持模式和使用系统（请查阅显示卡或系统手册来改变图像模式）。

选择的分辨率不能正确显示
- 进入 OSD 信息菜单，确定已选择合适的，如果不是，选择相应的选择项。

无声音
- 检查扬声器电缆是否连接正确。
- 检查是否为弱音状态。
- 检查是否音量调在最小。

遥控器失灵
- 测试遥控器的电池强度 / 寿命。
- 检查电池是否正确安装。
- 检查遥控器是否指向接收窗口。

“SCHEDULE（程序）”/“OFF TIMER（定时关机）”功能工作不正常
- 当设置了“OFF TIMER（定时关机）”，则“SCHEDULE（程序）”功能将被禁用。
- 如果“OFF TIMER（定时关机）”功能被激活，并且液晶监视器的电源也是关闭的，或电源非正常中断“OFF TIMER（定时关机）”将重置。

线条杂质
选择不同模式时，屏幕上也许会出现垂直或水平的线条。这不是产品故障或是品质降低。

显示屏上显示“NO SIGNAL（无信号）”
直接连接 HDCP 设备后有可能不显示图像。

规格

规格（MDT421S）

产品规格		模拟输入	数字输入
LCD模块	对角线：	42" / 106.7 cm	
	点距：	0.485 mm	
	分辨率：	1920 x 1080像素（2070000像素）	
	彩色：	10亿色以上（取决于所使用的显卡）	
	亮度：	700 cd/m^2 (typ.)	
	对比度：	1100:1	
	响应时间：	9 ms (G to G)	
	视角：	上 178˚ / 下 178˚ / 左 178˚ / 右 178˚ (typ.) @CR>10	
频率	水平：	15.625 / 15.734, 31.5 - 91.1 kHz	
	垂直：	50.0 / 58.0 - 85.0 Hz	
点时钟		13.5 MHz -165.0 MHz	25.0 MHz - 165.0 MHz
可视尺寸		930.3 x 523.3 mm / 36.6 x 20.6 英寸	
输入信号			
PC输入：	视频：	模拟RGB视频：0.7 Vp-p 输入阻抗75欧姆	TMDS
	同步：	分离HV同步：TTL电平（正/负）绿色同步， 复合同步（0.3 Vp-p）。 输入阻抗2.2千欧	
	输入端子：	BNC（R、G、B、H、V）15针小型D-sub	HDMI、DVI-D DISPLAY PORT
视频输入：		复合：1.0 Vp-p 输入阻抗75欧姆 BNC与RCA针插口输入 Y/C Y：1 Vp-p C：0.286 Vp-p输入 阻抗75欧姆 S端子输入 分量：1.0/0.7 Vp-p 输入阻抗75欧姆 BNC输入	
音频输入：		RCA针插口L/R输入 x 2，立体声小型插口输入 x 1	
RS-232C:	输入：	9针小型D-sub	
输出信号			
PC输出：	视频：	模拟RGB视频：0.7 Vp-p 75欧姆止	
	同步：	分离HV同步：TTL电平（正/负）	
	输出端子：	15针小型D-sub	
视频输出：		BNC输出 x 1，复合1.0 Vp-p 75欧姆止	
音频输出：		RCA针插口L/R输出 x 1，0.15 Vrms 47欧姆止	
扬声器输出：		外接扬声器插口7 W+7 W（8欧姆）	
RS-232C：	输出：	9针小型D-sub	
支持分辨率：		640 x 480，于60 Hz - 85 Hz 800 x 600，于50 Hz, 60 Hz - 85 Hz 1024 x 768，于50 Hz, 60 Hz - 85 Hz 1280 x 768，于50 Hz, 60 Hz - 85 Hz 1360 x 768，于50 Hz, 60 Hz - 85 Hz 1280 x 1024，于60 Hz - 85 Hz 1600 x 1200，于60 Hz 1920 x 1080，于60 Hz* （*：推荐分辨率） 1920 x 1200，于60 Hz NTSC、PAL、SECAM、4.43NTSC、PAL60 分量：480i、480p、720p、1080i、1080p	
电源		2.4 - 1.1 A @100 - 240 V AC, 50 / 60 Hz	
功耗		232 W	
	节电：	不高于3 W（电源键ON/主电源开关ON/待机模式） 不高于3 W（电源键OFF/主电源开关ON）	
使用环境	温度：	横向放置时：5 ～ 40℃ / 41-104˚F, 纵向放置时：5 ～ 35℃/ 41 - 95˚F	
	湿度：	20 - 80% (不结露)	
保存环境	温度：	-20 - 60℃ / -4 - 140˚F	
	湿度：	10 - 90% (不结露)/90%-3.5%x(温度-40℃)， 有关40℃以上	
尺寸	净尺寸：	965.6 mm (W) x 558.6 mm (H) x 115.9 mm (D) / 38.02" (W) x 21.99" (H) x 4.56" (D)	
	毛尺寸：	1130 mm (W) x 709 mm (H) x 280 mm (D) / 44.49" (W) x 27.91" (H) x 11.02" (D)	
重量	净重：	51.8 lbs / 23.5 kg (大约)	
	毛重：	68.3 lbs / 31 kg (大约)	
墙壁安装面板		12 孔（100 mm间距） 可选多用安装架	
安全认证		UL60950-1/C-UL/EN60950-1/FCC-B/DOC-B/EN55022-B/CCC EN55024/EN61000-3-2/EN61000-3-3/C-Tick/CE/GOST-R	
电源管理		VESA DPM	
即插即用		VESA DDC2B, DDC/CI	
附件		用户手册、电源线、视频信号电源线、无线遥控器、7号电池 x 2、 夹子 x 2(用于防止掉落)、夹子 x 3(用于固定电缆)、 夹子 x 2(用于固定电源线、HDMI电缆和Display Port电缆)、用于夹子的固定螺丝 x 2	

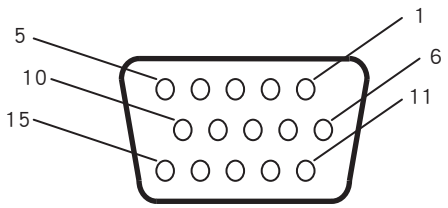
注意： 技术规格若有变更，恕不另行通知。

PIN 脚布置

1）模拟RGB信号输入（Mini D-SUB 15P）：RGB3

PIN脚	名称
1	视频信号 红色
2	视频信号 绿色
3	视频信号 蓝色
4	GND
5	DDC-GND
6	红-GND
7	绿-GND
8	蓝-GND
9	+5V (DDC)
10	同步-GND
11	GND
12	DDC-SDA
13	水平-同步
14	垂直-同步
15	DDC-SCL

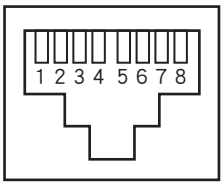
Mini D-SUB 15P



2）模拟RGB信号输入（CAT5）：RGB5

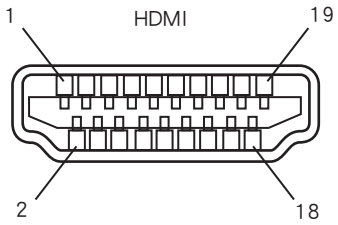
RJ45的PIN#	信号	对数
#1	红色视频+	
#2	红色视频-	
#3	绿色视频+	
#4	蓝色视频+	
#5	蓝色视频+	
#6	绿色视频-	
#7	RS-485+	
#8	RS-485-	

CAT5



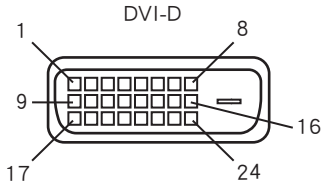
3）数字RGB信号输入（HDMI）：RGB1

HDMI连接器的PIN脚分布					
1	TMDS数据2+	8	TMDS数据0屏蔽	15	SCL
2	TMDS数据2屏蔽	9	TMDS数据0-	16	SDA
3	TMDS数据2-	10	TMDS时钟+	17	DDC/CEC 接地
4	TMDS数据1+	11	TMDS时钟屏蔽	18	+5V 电源
5	TMDS数据1屏蔽	12	TMDS时钟-	19	热插座检测
6	TMDS数据1-	13	CEC		
7	TMDS数据0+	14	既定(N.C.设备)		



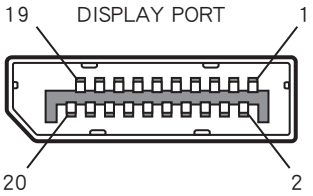
4）数字RGB信号输入（DVI-D）：RGB2

PIN脚-DVI-D分配-D连接器					
1	TMDS数据2-	9	TMDS数据1-	17	TMDS数据0-
2	TMDS数据2+	10	TMDS数据1+	18	TMDS数据0+
3	TMDS数据2屏蔽	11	TMDS数据1屏蔽	19	TMDS数据0屏蔽
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC时钟	14	+5V电源	22	TMDS时钟屏蔽
7	DDC数据	15	地线（返回至+5V，H-SYNC及V-SYNC）	23	TMDS时钟+
8	模拟垂直同步	16	热插拔检测	24	TMDS时钟-



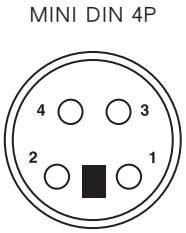
5）数字RGB信号输入（DISPLAY PORT）：RGB6

PIN脚	名称	PIN脚	名称
1	ML_Lane 3 (n)	11	GND 顶端
2	GND	12	ML_Lane 0 (p)
3	ML_Lane 3 (p)	13	CONFIG1
4	ML_Lane 2 (n)	14	CONFIG2
5	GND	15	AUX CH (p)
6	ML_Lane 2 (p)	16	GND
7	ML_Lane 1 (n)	17	AUX CH (n)
8	GND	18	热插拔检测
9	ML_Lane 1 (p)	19	回复
10	ML_Lane 0 (n)	20	DP_PWR



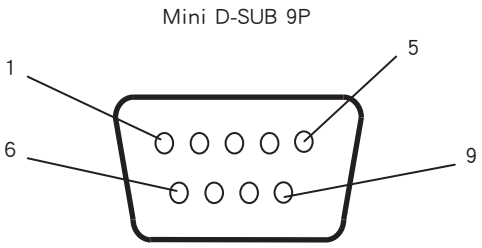
6）S-VIDEO 输入（MINI DIN 4P）：VIDEO<S>

PIN脚	名称
1	GND
2	GND
3	Y （亮度）
4	C （色度）



7）RS-232C输入 / 输出

PIN脚	名称
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC



「电子信息产品污染控制标识要求」(产品名：LCD监视器)(机种名：MDT421S)的表示方式

(1) 电子信息产品污染控制标识

根据2006/2/28公布的“电子信息产品污染防止管理办法”，这个标记是适用于在中国销售的电子信息产品的环境保护使用期限。只要能遵守本产品在安全和使用方面的注意事项，从生产日算起的年限以内，不会对环境污染，人体，财产产生深刻的影响。

注）随包装的电池等消耗品的环保使用期限是平均产品寿命的3年。
产品正常使用终结废弃时，有关电子信息产品的回收、再利用等要遵守各自治体的法律法规的要求。

(2) 含有有害6物质的名称，含有量，含有部品

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板	×	○	○	○	○	○
液晶面板	×	×	○	○	○	○
机箱・底盘	×	○	○	○	○	○
其他 (电缆、遥控等)	×	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。
×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。

Index

Important Information English-2
Safety Precautions, Maintenance & Recommended Use English-4
Contents English-5
Parts Name and Functions English-6
Buttons, Switch, and Indicator English-6
Connectors and Terminals English-7
Wireless Remote Control English-8
< Operating Range for the Remote Control > English-9
< Handling the remote control > English-9
Setup Procedure English-10
CAT5 video connection English-12
How to Mount and Attach Options to the LCD Monitor English-14
Connections English-15
Wiring Diagram English-15
Connecting a Personal Computer English-16
Connecting with Digital Interface Equipment English-17
Connecting a DVD Player with component output / HDMI output / DVI output English-18
Connecting to a VCR / Stereo Amplifier English-19
Basic Operation English-20
Power ON and OFF Modes English-20
Power Indicator English-21
Using Power Management English-21
Selecting a video source English-21
Picture Size English-21
Picture Mode English-21
Audio Source Switching English-21
Control Lock Mode English-21
Information OSD English-22
OSD (On-Screen-Display) Controls English-23
PICTURE English-24
SCREEN English-26
AUDIO English-27
PIP (PICTURE IN PICTURE) English-27
CONFIGURATION 1 ..... English-28
CONFIGURATION 2 ..... English-29
ADVANCED OPTION English-30
NOTE English-32
< IMAGE PERSISTENCE > English-32
< For long life use of Public Display > English-32
< HOW TO SETUP SCHEDULE > English-32
< PIP, POP and SIDE BY SIDE > English-33
< Supplemental information of the auto brightness function > English-33
< Remote control numbering function > English-34
Controlling the LCD monitor via RS-232C/RS-485 Remote Control English-35
Features English-37
Troubleshooting English-38
Specifications English-40
Pin Assignment English-41

English

Important Information

DECLARATION OF CONFORMITY

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions. (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

U.S. Responsible Party:	**Mitsubishi Digital Electronics America, Inc.**
Address:	**9351 Jeronimo Road,**
	Irvine, California 92618 U.S.A.
Tel. No.:	**+1 - (949) 465-6000**
Type of Product:	Computer Monitor
Equipment Classification:	Class B Peripheral
Model:	MDT421S (DR854)

We hereby declare that the equipment specified above conforms to the technical standards as specified in the FCC Rules.

Windows is a registered trademark of Microsoft Corporation. All other brands and product names are trademarks or registered trademarks of their respective owners.
HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
The DisplayPort Icon is a trademark of the Video Electronics Standards Association, registered in the U.S. and other countries.

Canadian Department of Communications Compliance Statement
DOC: This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
C-UL: Bears the C-UL Mark and is in compliance with Canadian Safety Regulations according to CAN/CSA C22.2 No. 60950-1.

FCC Information

1. Use the attached specified cables with the MDT421S (DR854) color monitor so as not to interfere with radio and television reception.
   (1) Please use the supplied power cord or equivalent to ensure FCC compliance.
   (2) Please use the supplied shielded video signal cable, 15-pin mini D-SUB to 15-pin mini D-SUB.
2. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.
   These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
   - Reorient or relocate the receiving antenna.
   - Increase the separation between the equipment and receiver.
   - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
   - Consult your dealer or an experienced radio/TV technician for help.

If necessary, the user should contact the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet, prepared by the Federal Communications Commission, helpful: “How to Identify and Resolve Radio-TV Interference Problems.” This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

Important Information

WARNING

TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO, DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS UNLESS THE PRONGS CAN BE FULLY INSERTED.

REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH VOLTAGE COMPONENTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION

CAUTION

TO REDUCE THE RISK OF ELECTRIC SHOCK, MAKE SURE POWER CORD IS UNPLUGGED FROM WALL SOCKET. TO FULLY DISENGAGE THE POWER TO THE UNIT, PLEASE DISCONNECT THE POWER CORD FROM THE AC OUTLET. DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any part inside this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included. Therefore, it should be read carefully in order to avoid any problems.

CAUTION

This LCD Monitor uses a lamp that contains mercury. Disposal of the lamp or the LCD Monitor with the lamp may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance.

Declaration

Declaration of the Manufacturer

We hereby certify that the color monitor MDT421S (DR854)
is in compliance with
Council Directive 2006/95/EC:
– EN 60950-1
Council Directive 2004/108/EC:
– EN 55022
– EN 61000-3-2
– EN 61000-3-3
– EN 55024

and marked with

CE

Mitsubishi Electric Corporation
2-7-3, Marunouchi,
Chiyoda-Ku
Tokyo 100-8310, Japan

English

Safety Precautions, Maintenance & Recommended Use

FOR OPTIMUM PERFORMANCE, PLEASE NOTE THE FOLLOWING WHEN SETTING UP AND USING THE LCD COLOR MONITOR:

- **DO NOT REMOVE MONITOR BACK COVER.** There are no user serviceable parts inside and opening or removing covers may expose you to dangerous shock hazards or other risks.
  Refer all servicing to qualified service personnel.
- Do not spill any liquids into the cabinet or use your monitor near water.
- Do not insert objects of any kind into the cabinet slots, as they may touch dangerous voltage points, which can be harmful or fatal or may cause electric shock, fire or equipment failure.
- Do not place any heavy objects on the power cord. Damage to the cord may cause shock or fire.
- Do not place this product on a sloping or unstable cart, stand or table, as the monitor may fall, causing serious damage to the monitor.
- When operating the LCD monitor with an AC 100-120V power supply in North America, use a power supply cord provided with this monitor.
- When operating the LCD monitor with an AC 220-240V power supply in Europe, use a power supply cord provided with this monitor.
- In UK, use a BS-approved power cord with molded plug having a black (10A) fuse installed for use with this monitor.
  If a power cord is not supplied with this monitor, please contact your supplier.
- When operating the LCD monitor with a 220-240V AC power supply in Australia, use the power cord provided with this monitor.
  If a power cord is not supplied with this monitor, please contact your supplier.
- For all other cases, use a power cord that matches the AC voltage of the power outlet and has been approved by and complies with the safety standard of your particular country.
- Do not place any objects onto the monitor and do not use the monitor outdoors.
- The inside of the fluorescent tube located within the LCD monitor contains mercury. Please follow the laws or rules of your municipality to dispose of the tube properly.
- Do not bend power cord.
- Do not use monitor in high temperature, humid, dusty, or oily areas.
- If monitor or glass is broken, do not come in contact with the liquid crystal and handle with care.
- If the LCD monitor is damaged and the liquid crystal leaks out, do not inhale or swallow it.
- Allow adequate ventilation around the monitor, so that heat can properly dissipate. Do not block ventilated openings or place the monitor near a radiator or other heat sources.
  Do not put anything on top of the monitor.
- The power cable connector is the primary means of detaching the system from the power supply. The monitor should be installed close to a power outlet, which is easily accessible.
- Handle with care when transporting. Save packaging for transporting.
- Please clean the holes of back cabinet to reject dirt and dust at least once a year because of set reliability.
- If using the cooling fan continuously, it's recommended to wipe holes a minimum of once a month.
- When installing the remote control batteries;
  - Align the batteries according to the (+) and (-) indications inside the case.
  - Align the (-) indication of the battery first inside the case.

CAUTION:

Immediately unplug your monitor from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the monitor.
- If the monitor has been exposed to rain or water.
- If the monitor has been dropped or the cabinet damaged.
- If the monitor does not operate normally by following operating instructions.

Recommended Use

CAUTION:

- For optimum performance, allow 20 minutes for warm-up.
- Rest your eyes periodically by focusing on an object at least 5 feet away. Blink often.
- Position the monitor at a 90° angle to windows and other light sources to minimize glare and reflections.
- Clean the LCD monitor surface with a lint-free, non-abrasive cloth. Avoid using any cleaning solution or glass cleaner!
- Adjust the monitor's brightness, contrast and sharpness controls to enhance readability.
- Avoid displaying fixed patterns on the monitor for long periods of time to avoid image persistence (after image effects).
- Get regular eye checkups.

Ergonomics

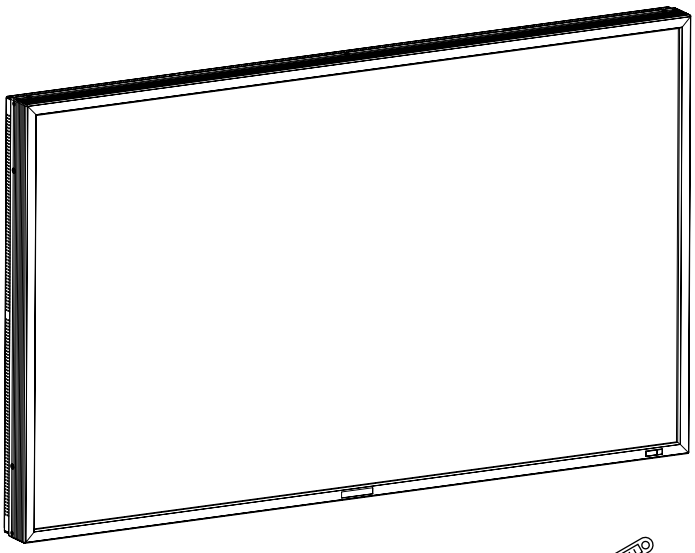
To realize the maximum ergonomic benefits, we recommend the following:

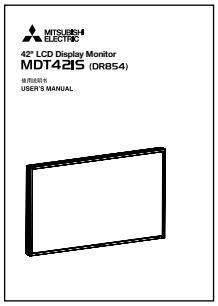
- Use the preset Size and Position controls with standard signals.
- Use the preset Color Setting.
- Use non-interlaced signals.
- Do not use primary color blue on a dark background, as it is difficult to see and may produce eye fatigue due to insufficient contrast.

Contents

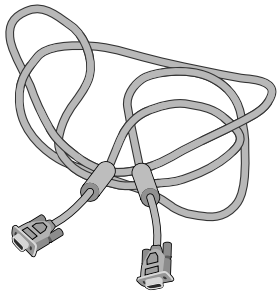
Your new MDT421S monitor box* should contain the following:

- LCD monitor
- Power Cord (3 m)
- Video Signal Cable (4 m)
- User's Manual
- Wireless Remote Control and AAA Batteries
- Clamper x 2 (To prevent from falling)
- Clamper x 3 (For securing cables)
- Clamper x 2 (For securing the power cord, HDMI cable, and Display Port cable)
- Screw for Clamper (To prevent from falling) x 2





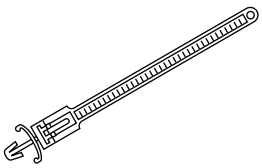
User's Manual



Video Signal Cable
(D-SUB to D-SUB Cable)

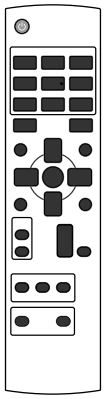
Screw for Clamper
(M4) x 2

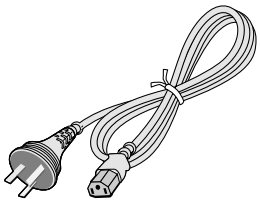
Clamper x 3
(For securing cables)



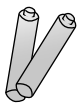
Clamper x 2
(For securing the power cord,
HDMI cable, and Display Port cable)

Clamper x 2
(To prevent from falling)





Power cord



Wireless Remote Control
and AAA Batteries

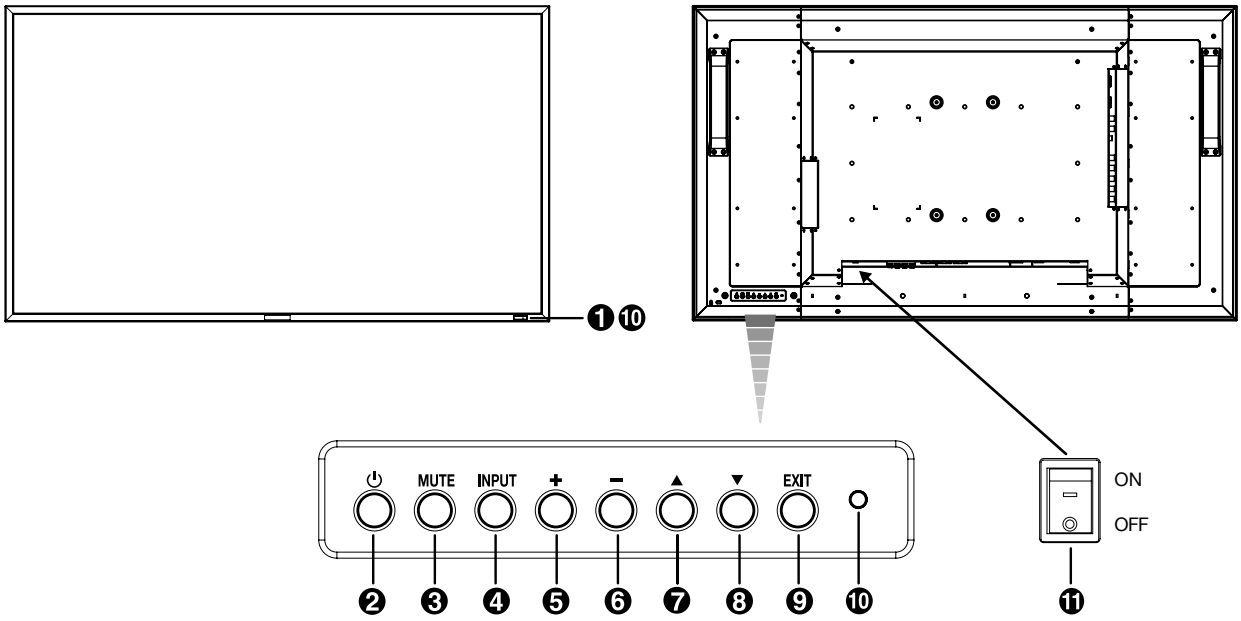
* Remember to save your original box and packing material to transport or ship the monitor.

The following components are prepared as option.

- External Speakers
- Stands
- Bezel
- CAT5 Kit

Parts Name and Functions

Buttons, Switch, and Indicator



❶ Remote control sensor and Power indicator

Receives the signal from the remote control (when using the wireless remote control). See also page 9.
Glows green when the LCD monitor is in active and glows red when the LCD is in POWER OFF mode. When the LCD is in power save mode, it will glow both green and red. When SCHEDULE is enabled, it will blink green and glow red. See page 21. In the case of where a failure is detected, it will blink red.

❷ POWER button (⏻)

Switches the power on/off. See also page 20.

❸ MUTE button

Switches the audio mute ON/OFF.

❹ INPUT button

Displays the OSD menu for switching the video input. (Select [RGB1], [RGB2], [RGB3], [RGB4], [RGB5]*, [RGB6], [DVD/HD], [VIDEO<S>] and [VIDEO] using the UP (▲) and DOWN (▼) buttons.)

* : [RGB 5] becomes usable when the optional CAT5 Rx BOX is mounted.

By pressing this button while the OSD menu is being displayed, you can move forward through the menu items. (See page 23.)

❺ PLUS (+) button

Acts as (+) button to increase the adjustment with OSD menu. Increase the audio output level when the OSD menu is turned off.

❻ MINUS (-) button

Acts as (-) button to decrease the adjustment with OSD menu. Decreases the audio output level when the OSD menu is turned off.

❼ UP (▲) button

Activates the OSD menu when the OSD menu is turned-off. Acts as ▲ button to move the highlighted area up to select the adjustment with OSD menu.

❽ DOWN (▼) button

Activates the OSD menu when the OSD menu is turned-off. Acts as ▼ button to move the highlighted area down to select the adjustment with OSD menu.

❾ EXIT button

Press the EXIT button to display the OSD menu while it isn't being displayed.
By pressing this button while the OSD menu is being displayed, you can move backward through the menu items. (You can move forward through the menu items using the INPUT button.) When you press this button at the Main Menu, the OSD menu disappears. (See page 23.)

❿ Brightness sensor (front, rear)

Sensor for the auto brightness function. (See page 25, 33.)

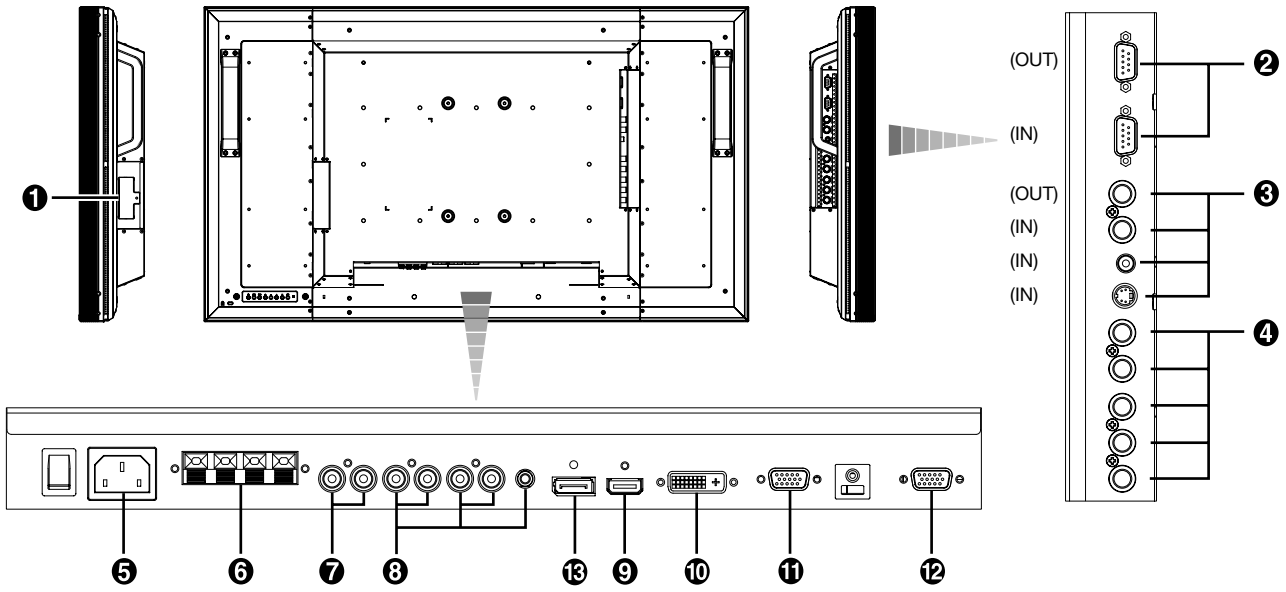
⓫ Main Power Switch

On/Off Switch to turn main power on/off.

NOTE: Control Key Lock Mode

This control completely locks out access to all Control Key functions. To activate the control key lock function, press both of "▲" and "▼" and hold down simultaneously for more than 3 seconds. To resume back to user mode, press both of "▲" and "▼" and hold simultaneously for three (3) seconds.

Connectors and Terminals



❶ CAT5 Rx BOX slot

The CAT5 Rx BOX (option) is inserted in this slot. (See page 12.)

NOTE:

Never connect network devices to the CAT5 IN and OUT connectors. If you do so, they may adversely affect with each other, causing breakdown.

❷ EXTERNAL CONTROL (mini D-Sub 9 pin)

Connect the IN connector with the RS-232C OUT connector of the computer or a multi-connected MDT421S monitor. Connect the OUT connector with the RS-232C IN connector of a multi-connected MDT421S or MDT521S monitor.

❸ VIDEO IN/OUT

VIDEO IN connector (BNC and RCA): To input a composite video signal. BNC and RCA are not available at the same time. (Use only one input).

VIDEO OUT connector (BNC): To output the composite video signal from VIDEO IN connector.

S-VIDEO IN connector (MINI DIN 4 pin): To input the S-video (Y/C separate signal).

❹ RGB 4 IN / DVD/HD IN (BNC)

To input the analog RGB signals from a computer or other RGB equipment.

Connecting equipment such as a DVD player, HDTV device, or Laser disc player. See page 16, 18.

❺ AC IN connector

Connects with the supplied power cord.

❻ EXTERNAL SPEAKER TERMINAL

To output the audio signal for external speakers from AUDIO 1, 2, 3 jack or HDMI.

❼ AUDIO OUT

To output the audio signal from the AUDIO IN 1, 2, 3 jack or HDMI.

❽ AUDIO IN 1, 2, 3

To input the audio signal from external equipment such as a computer, VCR or DVD player.

❾ RGB 1 IN (HDMI)

To input the digital RGB signals from a computer, DVD player, etc.

* This connector does not support analog input. AUDIO is supported via HDMI.

❿ RGB 2 IN (DVI-D)

To input the digital RGB signals from a computer.

* This connector does not support analog input. AUDIO is supported via DVI-D.

⓫ RGB 3 IN (mini D-Sub 15 pin)

To input the analog RGB signals from a computer or other RGB equipment.

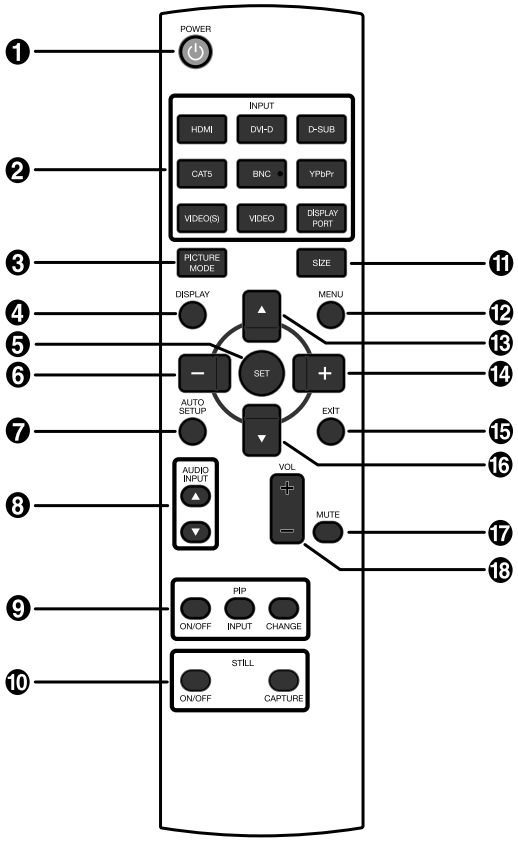
⓬ RGB OUT (mini D-Sub 15 pin)

To output the signal from RGB 3, 4 or 5 IN.

⓭ RGB 6 IN (DISPLAY PORT)

To input the digital RGB signals from a computer.

Wireless Remote Control



❶ POWER button

Switches the power on/off.

* If LED Power Indicator on the monitor is not glowing, then no controls will work.

❷ INPUT button

Selects from input signal, [RGB1] (HDMI), [RGB2] (DVI-D), [RGB3] (D-SUB), [RGB4] (BNC), [RGB5]* (CAT5), [RGB6] (DISPLAY PORT), [DVD/HD] (YPbPr), [VIDEO<S>] and [VIDEO].

* : [RGB 5] becomes usable when the optional CAT5 Rx BOX is mounted.

❸ PICTURE MODE button

Selects from picture mode, [HIGHBRIGHT], [STANDARD], [sRGB], [CINEMA]. See page 21.

HIGHBRIGHT: for moving image such as Video
STANDARD: for images (Factory setting)
sRGB: for text based images
CINEMA: for movies

❹ DISPLAY button

To switch the information OSD on/off. See page 22.

❺ SET button

Acts as SET button with OSD menu.

❻ MINUS button decrease

Acts as (-) button to decrease the adjustment with OSD menu.
Small screen which adjusted “PIP” mode moves left.

❼ AUTO SETUP button

To enter the auto setup menu. See page 28.

❽ AUDIO INPUT button

Press to change the audio source for each video source. The audio source is changed from [AUDIO1] to [AUDIO2], [AUDIO3] and [HDMI] in order. Note that you cannot select the audio source for [VIDEO<S>] or [VIDEO]. [HDMI] is selectable only when the video source is [RGB 1].

❾ PIP (Picture In Picture) button

ON/OFF button: PIP-ON/OFF. See page 27, 33.
INPUT button: Select the “picture in picture” input signal.
CHANGE button: Replaces to the main picture and sub picture.

Note:

The “PIP” and “POP” modes do not function when the screen size is “CUSTOM” or “REAL”.

❿ STILL button

ON/OFF button: To switch the still picture mode on/off.
CAPTURE button: Updates the still picture.

⓫ SIZE button

Selects picture size, [FULL], [NORMAL], [CUSTOM] , [DYNAMIC] and [REAL]. See page 21.

⓬ MENU button

To switch the menu mode on/off.

⓭ UP button

Acts as ▲ button to move the highlighted area up to select the adjustment with OSD menu.
Small screen which adjusted “PIP” mode moves up.

⓮ PLUS button increase

Acts as (+) button to increase the adjustment with OSD menu.
Small screen which adjusted “PIP” mode moves right.

⓯ EXIT button

Turn to previous menu with OSD menu.

⓰ DOWN button

Acts as ▼ button to move the highlighted area down to select the adjustment with OSD menu.
Small screen which adjusted “PIP” mode moves down.

⓱ MUTE button

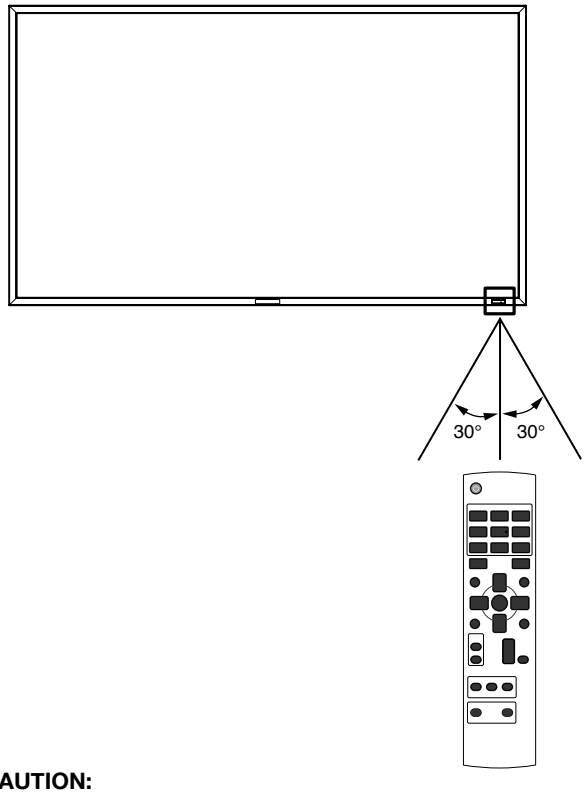
To switch the mute function on/off.

⓲ VOLUME button

Increases or decreases the audio output level.

< Operating Range for the Remote Control >

Point the top of the remote control toward the LCD monitor's remote sensor during button operation.
Use the remote control within a distance of about 7 m/23 ft. from the front of the LCD monitor's remote control sensor and at a horizontal and vertical angle of within 30° within a distance of about 3 m/10 ft.



CAUTION:
Important, the remote control system may not function when direct sunlight or strong illumination strikes the remote control sensor of the LCD monitor, or when there is an object in the path.

< Handling the remote control >

* Do not subject to strong shock.
* Do not allow water or other liquid to splash the remote control. If the remote control gets wet, wipe it dry immediately.
* Avoid exposure to heat and steam.
* Other than to install the batteries, do not open the remote.

Setup Procedure

1. Determine the installation location

CAUTION:
DO NOT ATTEMPT TO INSTALL THE LCD MONITOR BY YOURSELF.
Installing your LCD display must be done by a qualified technician. Contact your dealer for more information.

CAUTION:
MOVING OR INSTALLING THE LCD MONITOR MUST BE DONE BY TWO OR MORE PEOPLE.
Failure to follow this caution may result in injury if the LCD monitor falls.

CAUTION:
Do not mount or operate the display upside down or face down.

CAUTION:
Do not install the LCD monitor where it will be exposed to direct sunlight, as this will result in display defects.

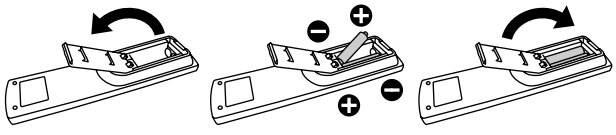
CAUTION:
This LCD has a temperature sensor and cooling fan. If the LCD becomes too hot, the cooling fan will turn on automatically. If the LCD becomes overheated and the cooling fan is running, the “Caution” menu will appear. If the “Caution” menu appears, discontinue use and allow the unit to cool. When the LCD monitor is used in an enclosure or with protection on LCD surface, please check the inside temperature of monitor by “HEAT STATUS” (See page 31). The temperature is too hot than normal condition, please set “cooling fan” to ON on SCREEN SAVER function (See page 28).

IMPORTANT:
Lay the protective sheet, which was wrapped around the LCD monitor when it was packaged, beneath the LCD monitor so as not to scratch the panel.

2. Installing the remote control batteries

The remote control is powered by 1.5V AAA batteries.
To install or replace batteries:

1. Unlock and pull up the cover in the arrow’s direction.
2. Align the batteries according to the (+) and (–) indications inside the case.
3. Replace the cover.



CAUTION:
Incorrect use of batteries can result in leaks or bursting.
Be careful especially about the following points.

- Place “AAA” batteries matching the + and - signs on each battery to the + and - signs of the battery compartment.
- Do not mix battery types.
- Do not combine new batteries with used ones. It causes shorter battery life or leakage of batteries.
- Remove dead batteries immediately to prevent battery liquid from leaking into the battery compartment. Don't touch exposed battery acid, it cause damage to your skin.

NOTE:
If you do not intend to use the Remote Control for a long period, remove the batteries.

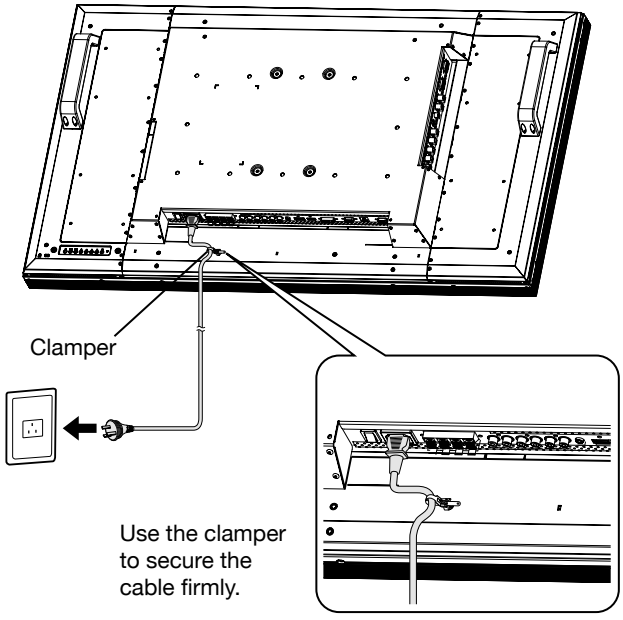
3. Connect external equipment (See pages 15-19)

- To protect the connected equipment, turn off the main power before making connections.
- Refer to your equipment user manual.

4. Connect the supplied power cord

- The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.
- Fully insert the prongs into the power outlet socket. Loose connection may cause noise.

NOTE:
Please refer to “Safety Precautions, Maintenance & Recommended Use” section of this manual for proper selection of AC power cord.



5. Switch on the power of all the attached external equipment

When connected with a computer, switch on the power of the computer first.

6. Operate the attached external equipment

Display the signal on the external equipment you wish.

7. Adjust the sound

Make adjustments lowering or rising the volume as required.

8. Adjust the screen (See pages 24-34)

Make adjustments to the display position or settings if required.

9. Adjust the image (See pages 24-34)

Make adjustments to brightness or contrast if required.

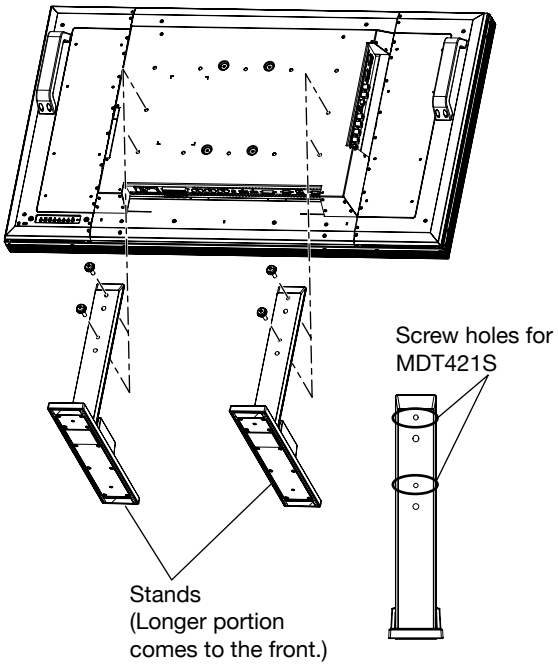
10. Recommended Adjustment

To reduce the risk of “image persistence”, please adjust the following items based on the application being used. “POWER SAVE” (See page 28), “SCREEN SAVER” (See page 28), “SIDE BORDER COLOR”(See page 28), “DATE AND TIME” (See page 31), “SCHEDULE”(See page 31).

11. Installing and removing the stands

The stands are prepared as option.

Refer to the user’s manual of the stand for more information.



How to install the stands

1. Please turn monitor off.
2. Fasten screws on both sides of the monitor.

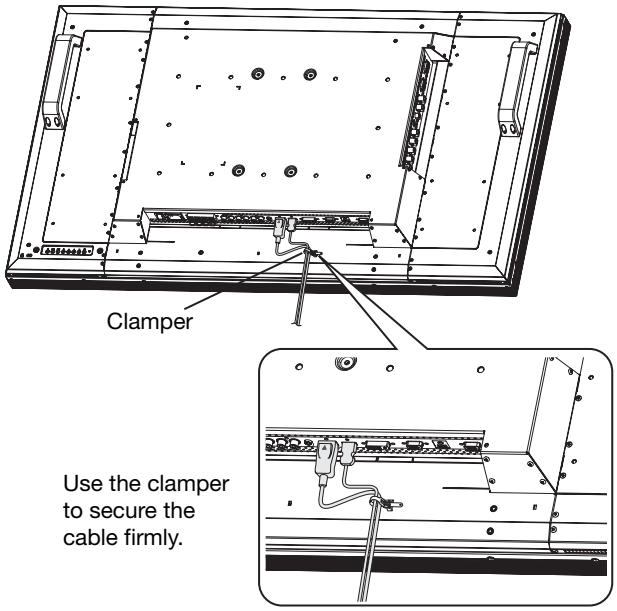
NOTE:

Install the stands so that their longer portions come to the front.

How to remove the stands

1. Spread the protective sheet on the flat surface, such as a desk.
2. Place monitor on the protective sheet.
3. Remove screws with a screwdriver and place them in a safe place for reuse.

12. Connecting HDMI cable and Display Port cable



English

13. When MDT421S is installed in portrait position

Conditions

MDT421S can be installed in portrait position, under the following conditions:

Caution:

Portrait position is effective only when wall-mounted or ceiling-mounted.

The stands (legs) can not be fitted to the monitor in portrait position.

Placing the monitor in portrait position, will shorten the average life of the LCD backlight.

Operational Environment (Temperature) shall be limited, as shown below:

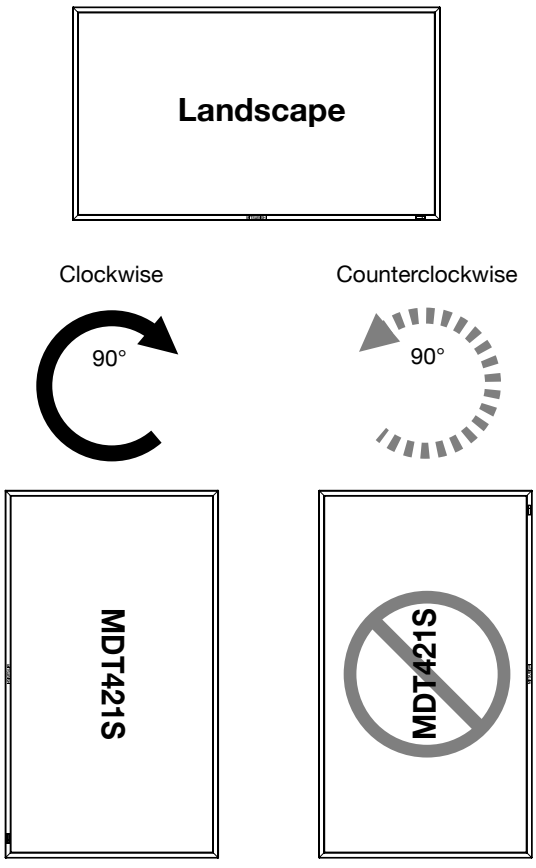
Operational Environment:

Temperature	5 - 35 °C / 41 - 95 °F
Humidity	20 - 80 % (without condensation)

Please orientate the monitor in the direction shown below:
Do not place monitor in landscape in any other manner.
Optional speakers (SP-421S) can not be attached when this LCD monitor is installed in portrait position.

How to set-up

The "MITSUBISHI" logo should be on the LEFT side when facing the monitor.



14. For long-distance connection using the CAT5 Kit

NOTE:

The CAT5 Kit is an option designed for MDT421S. For the detailed mounting procedure, see the user's guide for the CAT5 Kit (option).

CAT5 video connection

The CAT5 video connection function is for transmitting the analog RGB video signal of the computer and the control signal of the monitor over a long distance using CAT5 cables. The computer can control the monitor via the optional CAT5 Tx BOX and the CAT5 Rx BOX that is mounted on MDT421S.

Caution:

Never connect network devices (such as a hub and a computer for LAN) to the CAT5 IN and OUT connectors of the CAT5 Kit. If they are connected, the network devices themselves, CAT5 Tx BOX, CAT5 Rx BOX, and monitor may be damaged.

1. Installation of the USB driver for CAT5 serial communication control

To connect the computer and the CAT5 Tx BOX via USB interface, it is necessary to install the USB driver to the computer from the CD-ROM supplied with the CAT5 Kit (option).
(When connecting the computer and the CAT5 Tx BOX via RS-232C interface, you don't have to install the USB driver.)

OS supported: Windows® XP, Windows Vista®

How to install:

1) Installation to Windows® XP

Start the "PL2303-Driver_XP2K_v******.exe" file in the Windows XP folder on the CD-ROM supplied with the CAT5 Kit (option) and install the driver according to the instructions displayed on the screen.

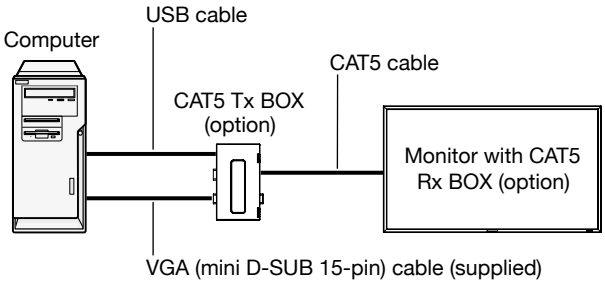
2) Installation to Windows Vista®

Start the "PL2303_Prolific_Vista_******.exe" file in the Windows VISTA folder on the CD-ROM supplied with the CAT5 Kit (option) and install the driver according to the instructions displayed on the screen.

2. Connection of the CAT5 video connection function

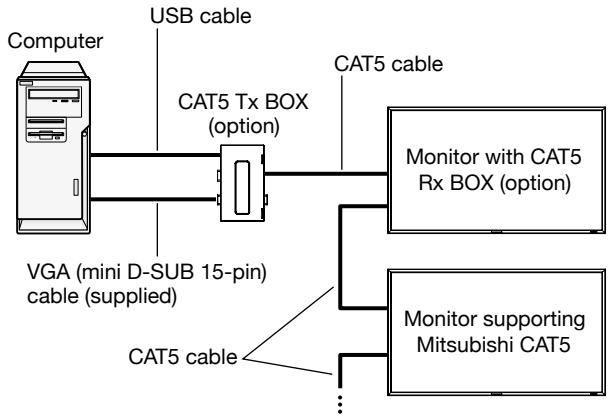
There are two cases of connection.

1) Connection to one monitor



1. Connect the USB connector of the supplied CAT5 Tx BOX and that of the computer using a commercially available USB cable. (When the USB driver isn't available, connect an RS-232C cable in addition to the USB cable. In this case, the USB cable serves for supplying the power to the CAT5 Tx BOX.) See page 35.
2. Connect the D-SUB input connector of the CAT5 Tx BOX and the VGA (D-SUB) output connector of the computer using the signal cable (mini D-SUB 15-pin cable) supplied with the monitor.
3. Connect the modular connector of the CAT5 Tx BOX and the CAT5 (RGB5) IN connector of the CAT5 Rx BOX using a commercially available CAT5 cable.

2) Connection to multiple monitors



1. In addition to the connection made step 1) above, connect the CAT5 OUT connector of the first monitor and the CAT5 (RGB5) IN connector of the second monitor using a commercially available CAT5 cable.
2. Connect the third and later monitors in the same way. You can connect up to 5 monitors.

Allowable cable length

Connection	Max. cable length/signal timing
One monitor	150 m / 1920 x 1080 @60 Hz
Multiple monitors	200 m / 1920 x 1080 @60 Hz (Total length of the connected cables)

The lengths given above are based on the actual measurements using our standard signal source and the recommended cable as follows. Before installation, check the monitor operation in advance by connecting it with your computer and cables.

Recommended cable:
8-pin modular connector, straight-through, shielded, Category 5 or 5e
Commercially available cables that passed the compatibility test (Tested with shielded connectors commercially available.):
7929A of Belden, NFTP-C5e-GY of Nex1

3. Various settings involved in the CAT5 video connection

In the case of the CAT5 video connection, configure the following settings displayed on the OSD screen. (See page 29.)

1) CAT5 CABLE LENGTH

Select the cable length, and the defaults of all the adjustment values are automatically determined.
Select the length that is closest to the actual length of your cable.

2) CAT5 EQ

Make adjustment so that blur and smear of the displayed letters and graphic objects are minimized.

3) CAT5 R-GAIN/G-GAIN/B-GAIN

When the displayed image is dark, increase each value.
When whites aren't displayed as intended, adjust the R-GAIN and B-GAIN values.

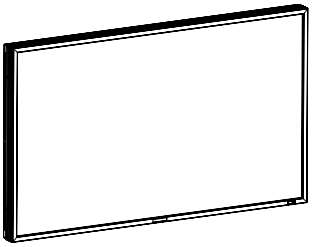
4) CAT5 R-SKEW/G-SKEW/B-SKEW

Adjust each value so that the color deviation in the displayed letters and graphic objects is minimized.

How to Mount and Attach Options to the LCD Monitor

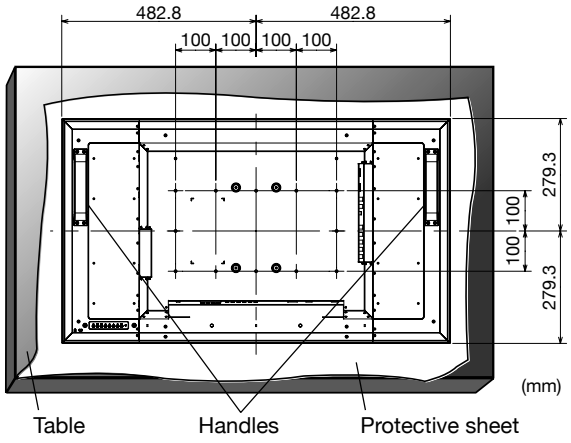
You can attach mounting accessories to the LCD monitor in one of the following two ways:

1. In the upright position



2. Lay the screen face down

Lay the protective sheet on a table, which was wrapped around the monitor when it was packaged, beneath the screen surface so as not to scratch the screen face.
This device cannot be used or installed without the Tabletop Stand or other mounting accessory. Failure to follow correct mounting procedures could result in damage to the equipment or injury to the user or installer. Product warranty does not cover damage caused by improper installation.
Failure to follow these recommendations could result in voiding your warranty.
Use M6 screws (having a length 10 mm longer than the thickness of the mounting bracket) and tighten them securely.
Prevent the screws from loosening using spring washers, etc. MITSUBISHI ELECTRIC recommends using mounting interface that comply with TÜV-GS and/or UL1678 standard in North America.



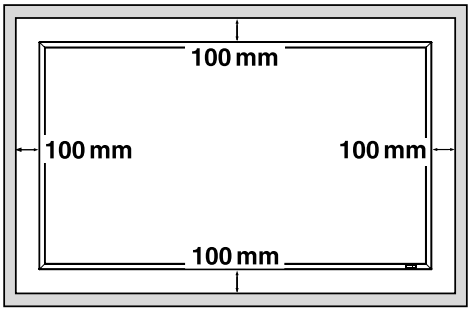
Caution:

For preventing the monitor from falling.

- Install the monitor with metal brackets for wall or ceiling installation (commercially available) on your own responsibility. For detailed procedures of installation, refer to the instructions of the metal brackets.
- To lessen the probability of injury and damage resulting from fall of the monitor in case of earthquake or other disaster, be sure to consult the bracket manufacturer for installation location.
- To lessen the risk of falling of the monitor, thread commercially available rope through the handles at the right and left of the monitor and secure the rope to the wall mount brackets or ceiling mount brackets.
- Do not sleep where the monitor may topple over or fall in case of an earthquake or other disaster.

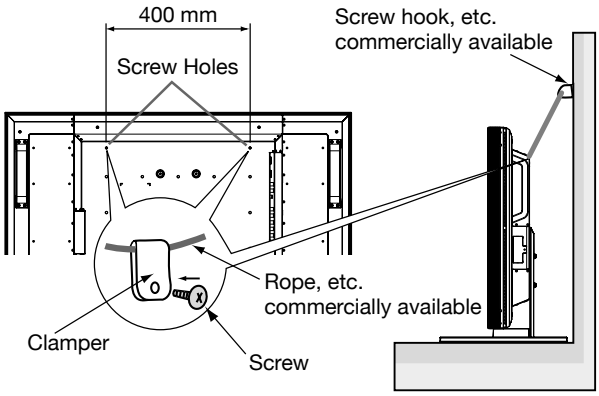
3. Ventilation Requirements for enclosure mounting

To allow heat to disperse, leave space between surrounding objects as shown in the diagram below.



4. To avoid monitor from falling

When installing the monitor using the tabletop stands (optional), take measures to prevent the monitor from falling over in case of an earthquake or other disaster to lessen the probability of injury and damage resulting from fall.
As shown in the figure, secure the monitor to a solid wall or pillar using rope (commercially available) strong enough to bear the weight of the monitor. (MDT421S: approx. 27 kg (with the optional stands))
When you use screw hooks (commercially available), ring screw hooks, not C-shaped screw hooks (with opening), are recommended.



Caution:

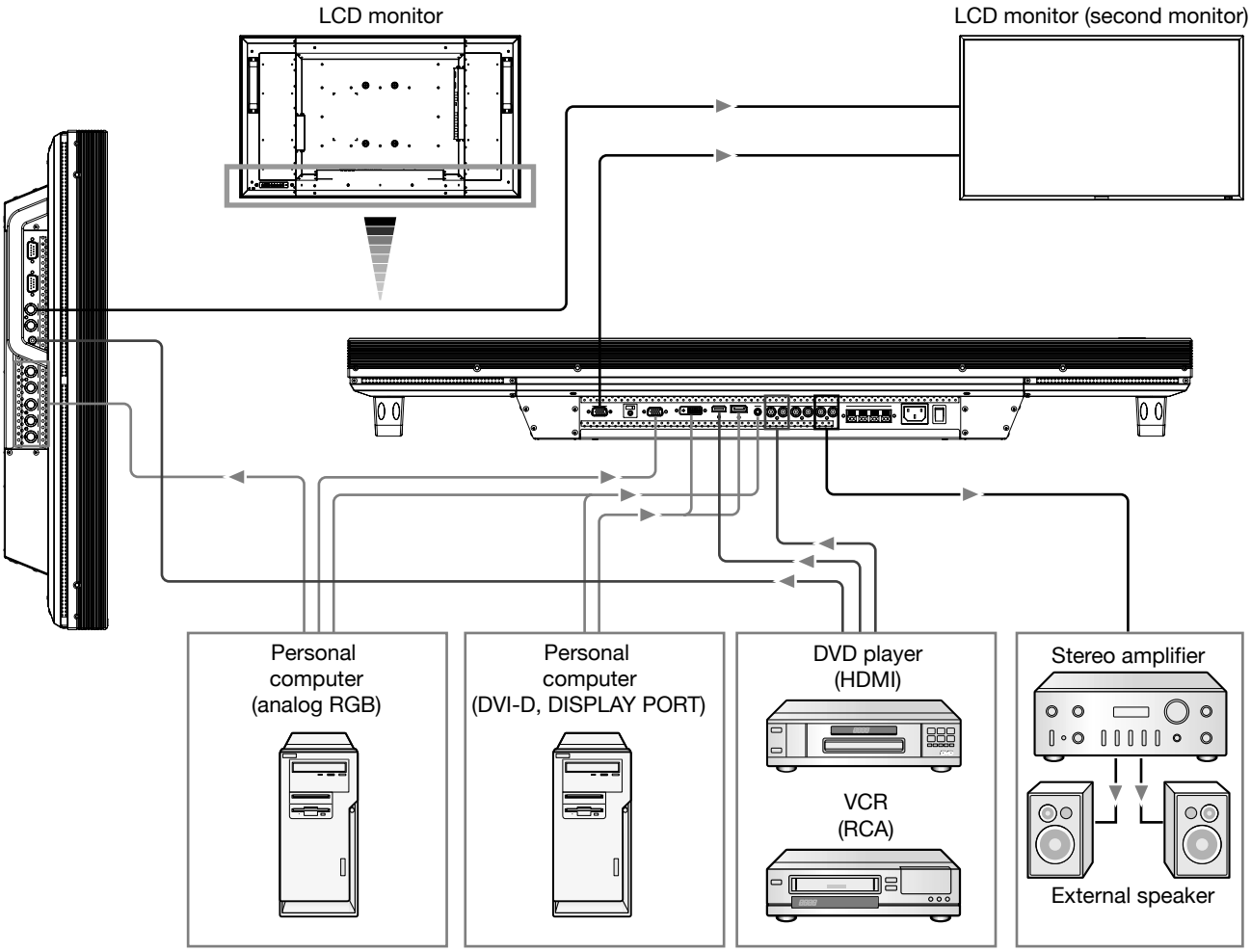
- The effectiveness of preventing from falling substantially depends on the strength of brackets and base to which prevention device from falling is attached. When you cannot ensure sufficient strength, provide adequate reinforcement.
- Though the recommended prevention from falling is intended to lessen the probability of injury and damage, it doesn't assure its effectiveness against any kind of earthquake or disaster.
- Do not sleep where the monitor may topple over or fall in case of an earthquake or other disaster.
- Before moving the monitor, remove the rope that is securing the monitor. Failure to do so may result in injury or breakdown of the monitor.

Connections

Before making connections:

* First turn off the power of all the attached equipment and make connections.
* Refer to the user manual included with each separate piece of equipment.

Wiring Diagram

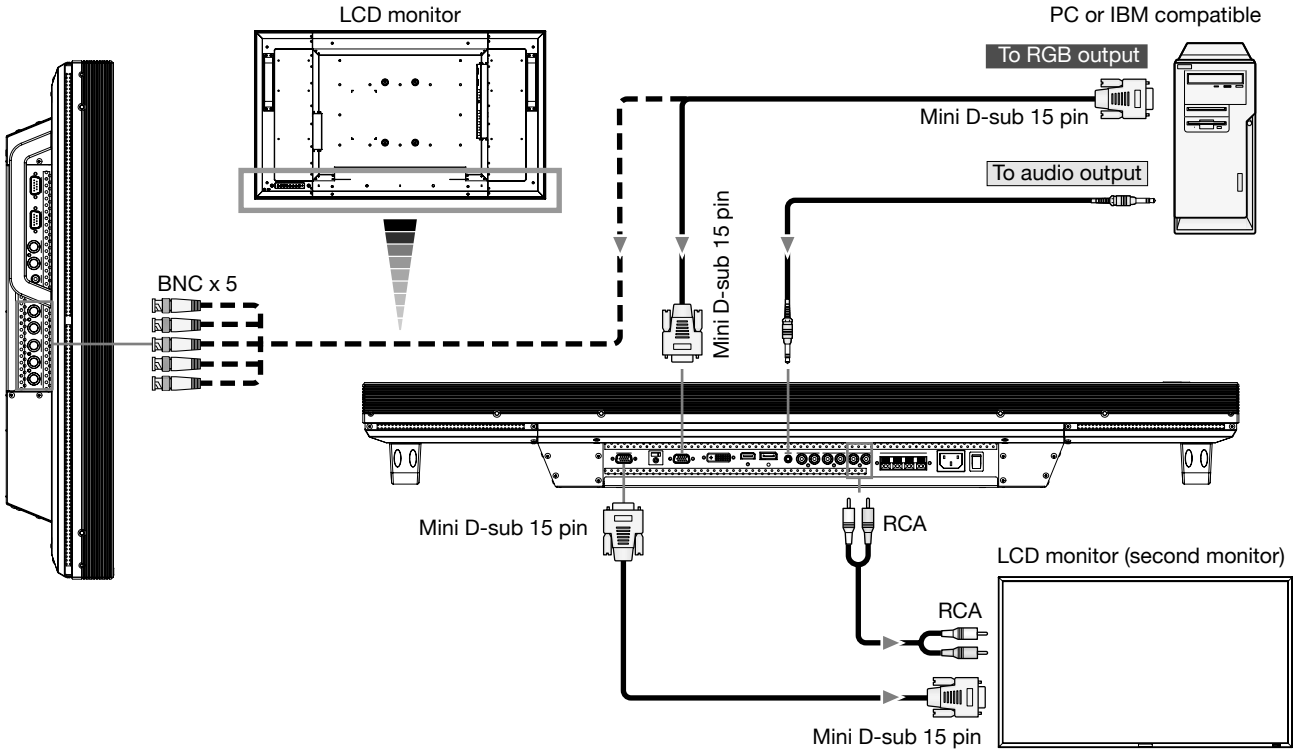


Connecting a Personal Computer

By connecting your computer to your LCD monitor, you can display images on your computer's screen.
Some video cards may not display an image correctly.

Connect the LCD Monitor to a Personal Computer

- To connect the computer to the RGB 3 IN connector (mini D-sub 15 pin) on the LCD monitor, use the supplied RGB signal cable (mini D-sub 15 pin to mini D-sub 15 pin).
  Select “RGB 3” using the INPUT button on the LCD monitor or the D-SUB button on the remote control.
- To connect the computer to the RGB 4 IN connector (BNC) on the LCD monitor, use a signal cable (mini D-sub 15 pin to BNC x 5).
  Select “RGB 4” using the INPUT button on the LCD monitor or the BNC button on the remote control.
- For audio input, select AUDIO IN 1, 2, or 3 using the AUDIO INPUT button.
- To connect a second LCD monitor, use the RGB OUT connector (mini D-sub 15 pin). (The RGB 3, RGB 4, or RGB 5 (option) signal selected by the first LCD monitor is output.)
- To output audio to the second LCD monitor, use the AUDIO OUT connector.

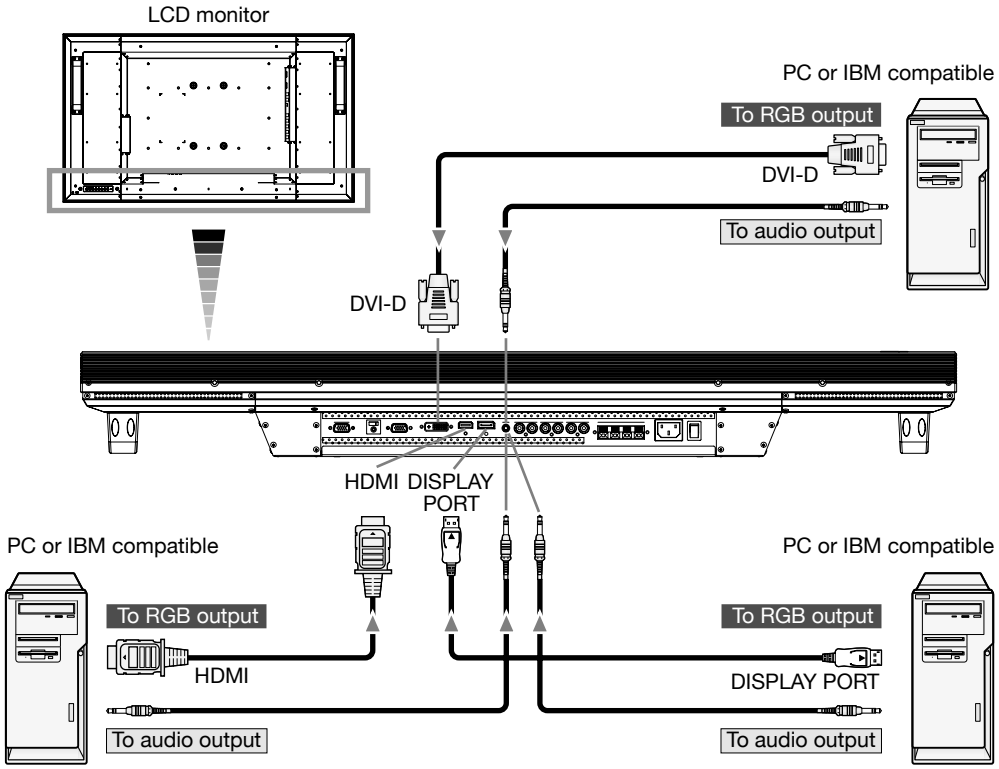


Connecting with Digital Interface Equipment

Connections can be made with equipment that is equipped with a digital interface compliant with the DVI (Digital Visual Interface) standard.

Connect the LCD Monitor to a Computer with a Digital Output

- To connect the computer to the RGB 2 IN connector (DVI-D) on the LCD monitor, use a DVI-D cable.
  Select “RGB 2” using the INPUT button on the LCD monitor or the DVI-D button on the remote control.
  Set DVI INPUT MODE to “DVI-PC.” (See page 31.)
- To connect the computer to the RGB 1 IN connector (HDMI) on the LCD monitor, use an HDMI cable.
  Select “RGB 1” using the INPUT button on the LCD monitor or the HDMI button on the remote control.
  Set HDMI INPUT MODE to “HDMI-PC.” (See page 31.)
- To connect the computer to the RGB 6 IN connector (DISPLAY PORT) on the LCD monitor, use a Display Port cable.
  Select “RGB 6” using the INPUT button on the LCD monitor or the DISPLAY PORT button on the remote control.
- For audio input, select AUDIO IN 1, 2, or 3 or HDMI using the AUDIO INPUT button. (HDMI is selectable only when the video input is “RGB 1.”)
- The signals input from the RGB 1 (HDMI), RGB 2 (DVI-D) and RGB 6 (DISPLAY PORT) connectors aren’t output to the RGB OUT connector.

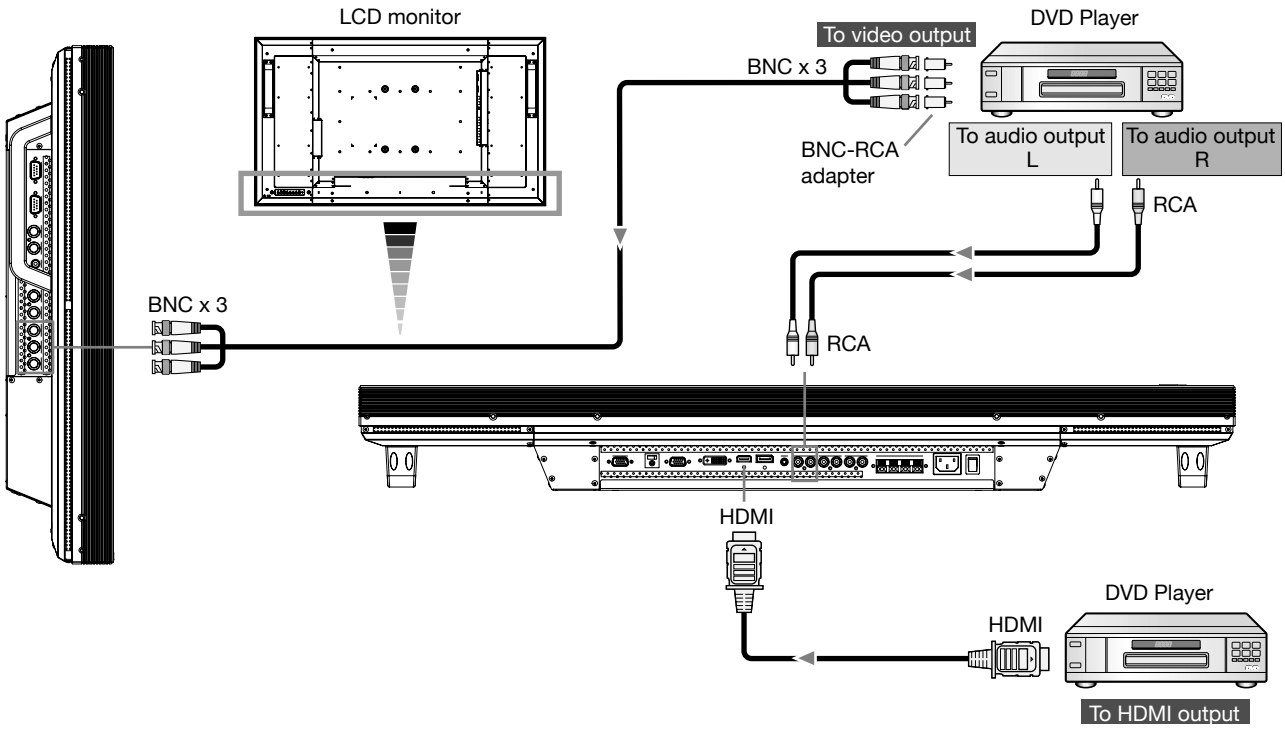


Connecting a DVD Player with component output / HDMI output / DVI output

You can connect DVD players equipped with a component output, HDMI output, and DVI output to your LCD monitor.
Refer to your DVD player owner's manual for more information.

Connect the LCD Monitor to a DVD Player

- To connect a DVD player equipped with a component output to the DVD/HD IN connector (BNC) on the LCD monitor, you may need a BNC connector cable (BNC to RCA adaptor).
  Select "DVD/HD" using the INPUT button on the LCD monitor or the YPbPr button on the remote control.
- To connect a DVD player equipped with an HDMI output to the RGB 1 IN connector (HDMI) on the LCD monitor, use an HDMI cable.
  Select "RGB 1" using the INPUT button on the LCD monitor or the HDMI button on the remote control.
  Set HDMI INPUT MODE to "HDMI-HD." (See page 31.)
- For audio input, select AUDIO IN 1, 2, 3 or HDMI using the AUDIO INPUT button. (HDMI is selectable only when the video input is "RGB 1.")



NOTE:
Operations of the connected HDMI device aren't always guaranteed.

Connecting to a VCR / Stereo Amplifier

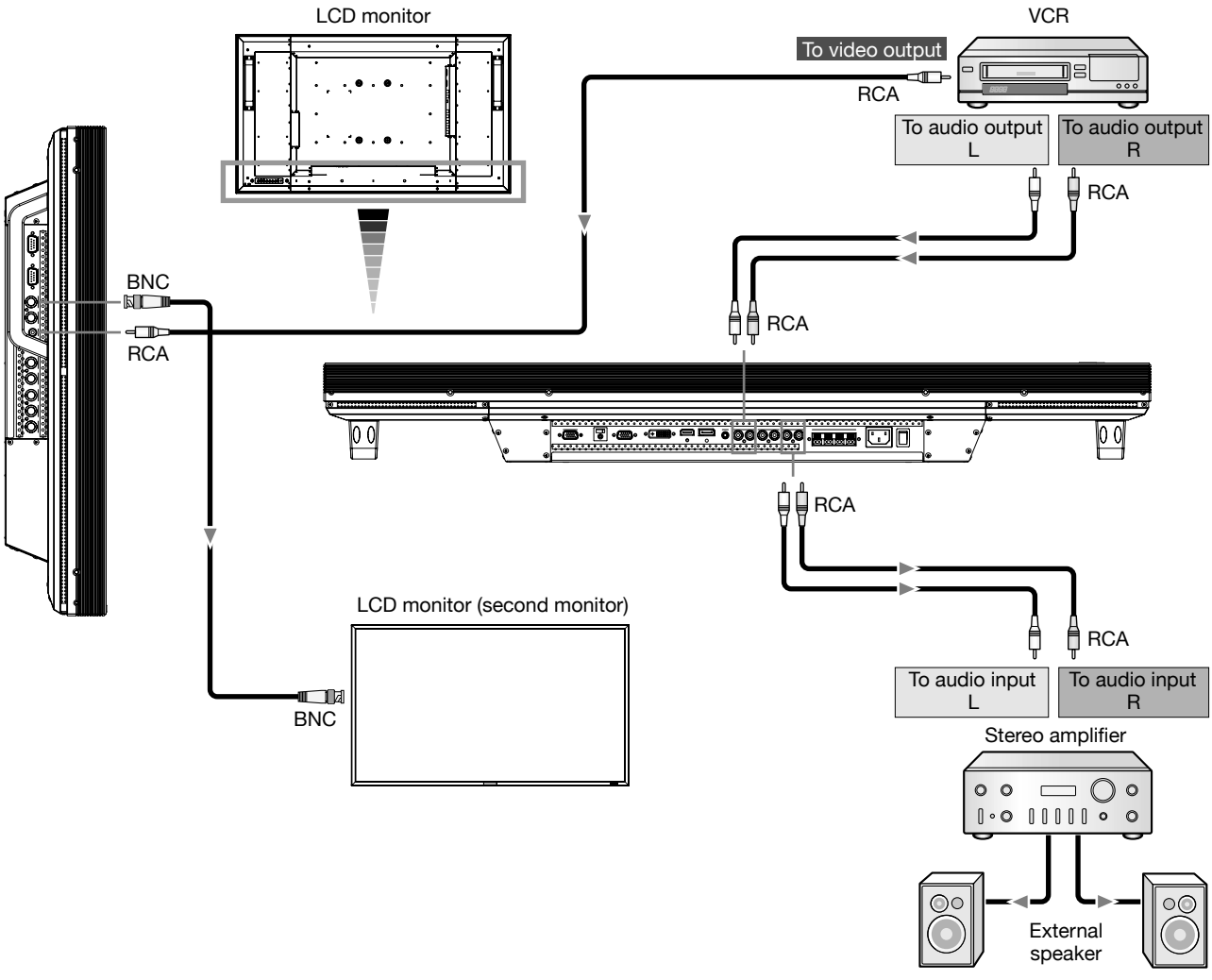
You can connect your VCR / stereo amplifier to your LCD monitor. Refer to your VCR / stereo amplifier owner's manual for more information.

Connect the LCD Monitor to a VCR / Stereo Amplifier

- To connect the VCR to the VIDEO IN connector (RCA, BNC, or S-VIDEO) on the LCD monitor, use a video cable or S-video cable.
  For connection to the AUDIO IN connector on the LCD monitor, use an RCA cable (audio cable).
  Connect the connectors of the RCA cable (audio cable) properly.
  When connecting the VCR to the RCA or BNC connector, select “VIDEO” using the INPUT button on the LCD monitor or the VIDEO button on the remote control.
  When connecting the VCR to the S-VIDEO connector, select “VIDEO<S>” using the INPUT button on the LCD monitor or the VIDEO button on the remote control.
- Before connecting a stereo amplifier to the LCD monitor, be sure to turn off the stereo amplifier.
  For connection to the AUDIO OUT connector on the LCD monitor, use an RCA cable (audio cable).
  Connect the connectors of the RCA cable (audio cable) properly.
  Turn on the LCD monitor first, and then turn on the stereo amplifier.
- The audio input signal selected by the LCD monitor is output from the AUDIO OUT connector.

NOTE:

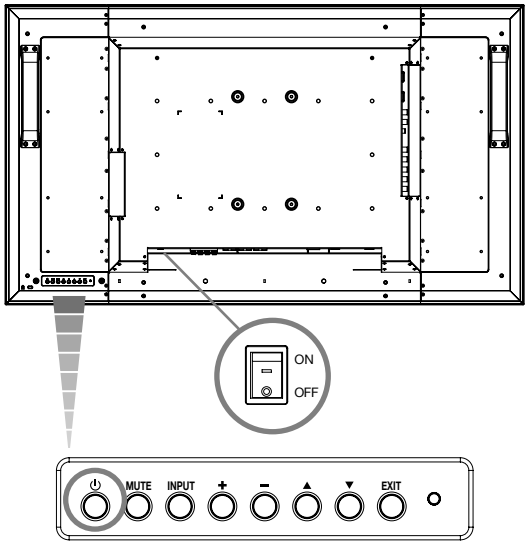
For video signal input, use either of the RCA or BNC connector.



Basic Operation

Power ON and OFF Modes

The LCD monitor power indicator will turn green while powered on or red in off mode. The monitor can be powered on or off using the following three options:



1. Pressing the Main Power Switch.

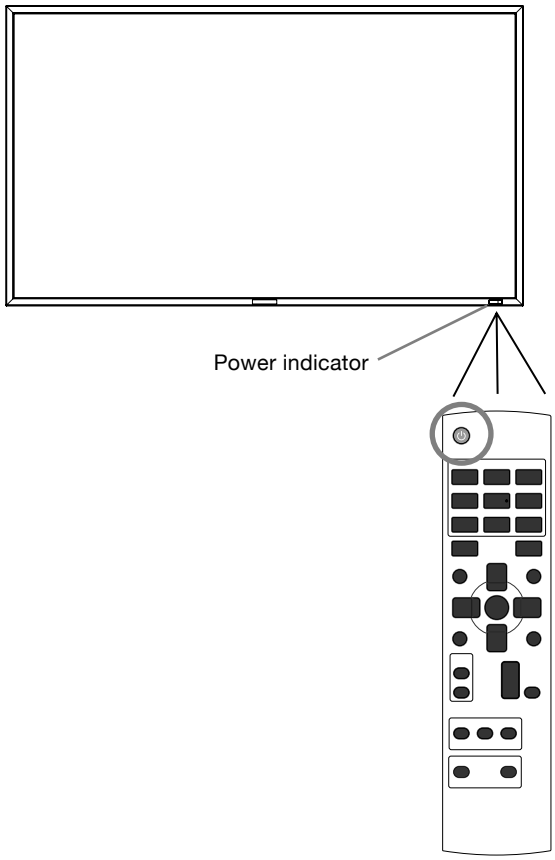
NOTE:

When the Main Power Switch is used to power off the LCD monitor, the remote control and the power button will not activate the on mode and both green and red power indicator turn off. Be sure to turn the Main Power Switch to the on mode before using these two options.

2. Pressing the power button.

NOTE:

Before pressing the power button, be sure to turn on the Main Power button on the LCD monitor.



3. Using the remote control.

NOTE:

Before operating the remote control, be sure to turn on the Main Power Switch on the LCD monitor.

Power Indicator

	Status
Power ON	Green
Power OFF	Red
Power Standby when "SCHEDULE" is enable	Red On Green Blinking
Power Standby	Red, Green
Diagnosis (Detecting failure)	Red Blinking * See troubleshooting on page 38.

Using Power Management

The LCD monitor follows the VESA approved DPM Power Management function.
The power management function is an energy saving function that automatically reduces the power consumption of the display when the keyboard or the mouse has not been used for a fixed period.
The power management feature on your new display has been set to the "ON" mode. This allows your display to enter a Power Saving Mode when no signal is applied. This could potentially increase the life and decrease the power consumption of the display.

Selecting a video source

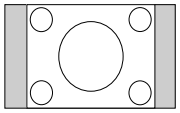
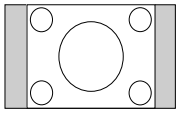
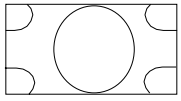
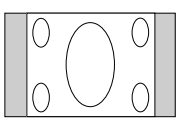
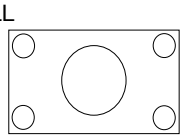
To view a video source:

Use the input button to set [VIDEO].
Use the COLOR SYSTEM menu to set [AUTO], [NTSC], [PAL], [SECAM], [PAL60], [4.43NTSC], according to your video format.

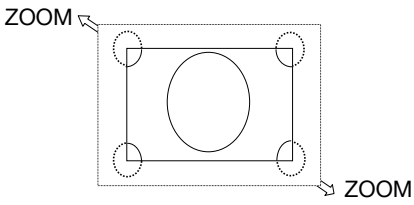
Picture Size

RGB 1, 2, 3, 4, 5, 6: FULL → NORMAL → CUSTOM → REAL →

DVD/HD, VIDEO<S>, VIDEO: FULL → NORMAL → DYNAMIC → REAL → CUSTOM →

Signal Type	NORMAL SIZE	Recommended Size
4:3		NORMAL  DYNAMIC 
Squeeze		FULL 

NORMAL: Display the input signal aspect ratio from the PC signal, or display in 4:3 aspect ratio from the DVD/HD or VIDEO signal.
FULL: Display in entire screen.
DYNAMIC: Expand 4:3 pictures to the entire screen with non-linearity. (Some round image will be cut by expansion.)
CUSTOM (ZOOM): Image can be expanded beyond the active display area. The image which is outside of active display area is not displayed.
REAL: Image will be displayed 1 by 1 pixel.



Picture Mode

RGB 1, 2, 3, 4, 5, 6: HIGHBRIGHT → STANDARD → sRGB

DVD/HD, VIDEO<S>, VIDEO: HIGHBRIGHT → STANDARD → CINEMA

Audio Source Switching

You can switch the audio source using the AUDIO INPUT button.

RGB 1, 2, 6: HDMI ↔ AUDIO1 ↔ AUDIO2 ↔ AUDIO3

Other than RGB 1, 2, 6: AUDIO1 ↔ AUDIO2 ↔ AUDIO3

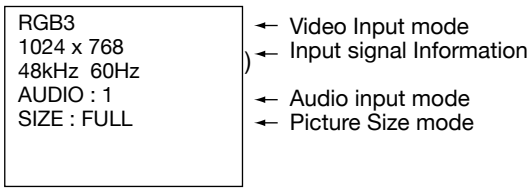
Control Lock Mode

This function disables the operation buttons so that the adjustments you make are not changed when they are pressed.
To disable the buttons, press and hold down the ▲ and ▼ buttons together for at least 3 seconds.
To enable the buttons, press and hold down the ▲ and ▼ buttons together for at least 3 seconds again.

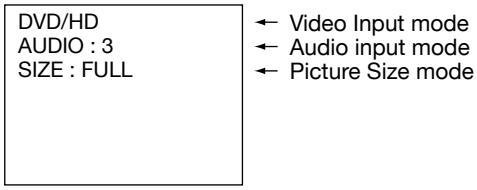
English

Information OSD

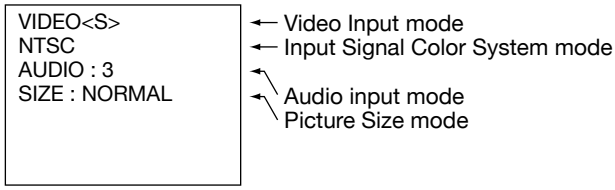
RGB1, 2, 3, 4, 5, 6



DVD/HD



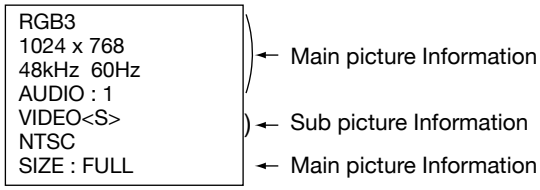
VIDEO<S>, VIDEO



PIP or POP

Main:RGB3

Sub:VIDEO<S>



OSD (On-Screen-Display) Controls

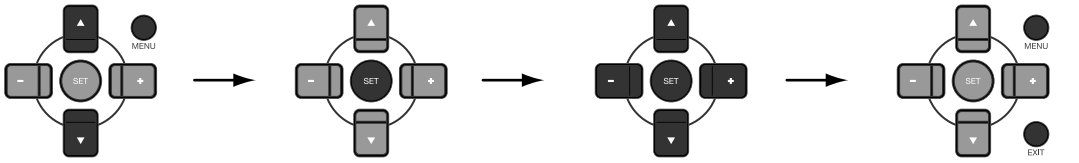
Remote Control

Press MENU button to open Main menu. Press UP or DOWN button to select sub-menu.

Press SET button to decide.

Press UP or DOWN, and PLUS or MINUS button to select function, or control which you like.
Press SET button to decide.

Press MENU or EXIT button to exit.



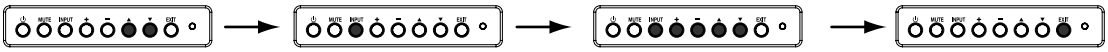
Control Panel

Press EXIT button to open Main menu. Press UP or DOWN button to select sub-menu.

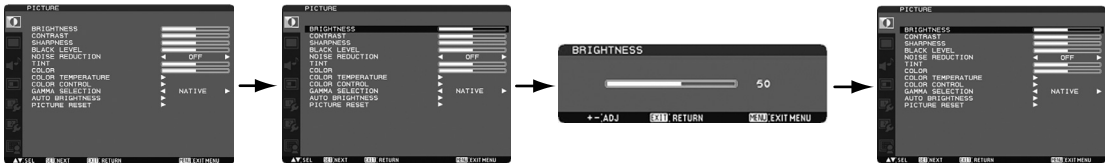
Press INPUT button to enter the selected sub-menu.

After selecting the sub-menu using UP or DOWN button and pressing INPUT button to enter the selected sub-menu, make adjustment using PLUS or MINUS button.

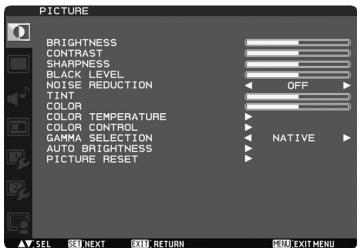
Press EXIT button to go back to the previous menu screen. By pressing EXIT button at Main-Menu, Main-Menu disappears.



OSD screen



Main-Menu



PICTURE

■ BRIGHTNESS

Adjusts the overall image and background screen brightness.
Press + button to increase brightness.
Press - button to decrease brightness.

■ CONTRAST

Adjusts the image brightness in relation to the input signal.
Press + button to increase contrast.
Press - button to decrease contrast.

■ SHARPNESS

This function is digitally capable to keep crisp image at any timings.
It is adjustable to get a distinct image or a soft one as you prefer and set independently for each picture mode.
Press + button to increase sharpness.
Press - button to decrease sharpness.

■ BLACK LEVEL

Adjusts the image brightness in relation to the background.
Press + button to increase black level.
Press - button to decrease black level.
NOTE: sRGB picture mode is standard and cannot be changed.

■ NOISE REDUCTION

* : INPUT RGB1 (HDMI INPUT MODE: HDMI-HD), RGB2 (DVI INPUT MODE: DVI-HD), DVD/HD, VIDEO<S>, VIDEO only

Adjusts the noise reduction level.
Press + button to increase reduction level.
Press - button to decrease reduction level.

■ TINT

* : INPUT RGB1 (HDMI INPUT MODE: HDMI-HD), RGB2 (DVI INPUT MODE: DVI-HD), DVD/HD, VIDEO<S>, VIDEO only

Adjust the tint of all color, or red, magenta, blue, cyan, green, and yellow individually.
Press + button the flesh tone color becomes greenish.
Press - button the flesh tone color becomes purplish.

■ COLOR

* : INPUT RGB1 (HDMI INPUT MODE: HDMI-HD), RGB2 (DVI INPUT MODE: DVI-HD), DVD/HD, VIDEO<S>, VIDEO only

Adjust the color saturation of all color, or of red, magenta, blue, cyan, green, and yellow individually.
Press + button to increase color depth.
Press - button to decrease color depth.

■ COLOR TEMPERATURE

Use to adjust the color temperature.
The image becomes reddish as the color temperature decreases, and it becomes bluish as the color temperature increases.

■ COLOR CONTROL

The color levels of red, green, and blue are adjusted by the color bars.
R: Red, G: Green, B: Blue

■ GAMMA SELECTION

Selects a display gamma.
2.2, 2.4, OPTION, S gamma, Native
NOTE: sRGB picture mode is standard and cannot be changed.

Continued on next page.

Continued from previous page.

■ AUTO BRIGHTNESS

This function controls the screen brightness depending on the ambient light for easy viewing.
In addition, it changes the screen brightness depending on the ambient light and what are displayed on the screen to reduce power consumption as low as possible.

[AUTO BRIGHTNESS]
LOCAL: The auto brightness function is enabled.
REMOTE: The auto brightness function is enabled. In addition, the monitor enters the intercommunication mode where multiple monitors are controlled collectively. (See page 33.)
OFF: This function is disabled.

[CONTROL]
PRIMARY: Select this setting to configure the monitor as Master when controlling multiple monitors collectively.
SECONDARY: Select this setting to use the monitor alone or to configure the monitor as Slave when controlling multiple monitors collectively.

[LIGHT FROM BACK]
YES: Select this setting when there is a light source such lighting equipment and a window behind the monitor.
NO: Select this setting when there is no light source such lighting equipment and a window behind the monitor.

[BACK WALL]
Select the following settings according to the distance between the rear of the monitor and the wall or window.
FAR: The distance is 5 meters or longer.
NEAR: The distance is 5 meters or shorter.

[FRONT SENSOR]
Select ON for normal use.
OFF: Select this setting when the sensor on the front panel is shielded.

[REAR SENSOR]
Select ON for normal use.
OFF: Select this setting when the sensor on the rear panel is shielded.

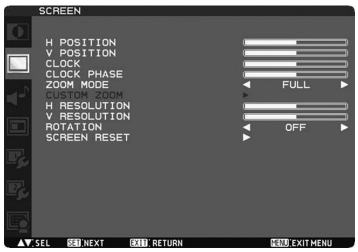
[SATURATION]
ON: The image saturation is adjusted depending on the ambient light.
OFF: Image saturation isn't adjusted.

[VIDEO DETECT]
ON: The screen brightness varies depending on what are displayed on the screen to reduce power consumption of the monitor.
OFF: The screen brightness doesn’t vary and the power consumption isn’t reduced.

■ PICTURE RESET

Selecting Picture reset allows you to reset all OSD settings about PICTURE setting.
Select “Yes” and press “SET” button to restore to factory preset data.
Press “EXIT” button to cancel and then return to the previous menu.

Main-Menu



SCREEN

H POSITION

Controls Horizontal Image position within the display area of the LCD.
Press + button to move screen to right.
Press - button to move screen to left.

V POSITION

Controls Vertical Image position within the display area of the LCD.
Press + button to move screen to UP.
Press - button to move screen to DOWN.

CLOCK * : INPUT RGB3, 4, 5 only

Press + button to expand the width of the image on the screen the right.
Press - button to narrow the width of the image on the screen the left.

CLOCK PHASE * : INPUT RGB3, 4, 5 only

Improves focus, clarity and image stability by increasing or decreasing this setting.

ZOOM MODE

You can select “FULL”, “NORMAL” and “CUSTOM” and “REAL”. (INPUT RGB1, 2, 3, 4, 5, 6 only) You can also select “FULL”, “NORMAL” “DYNAMIC” and “CUSTOM” and “REAL”. (INPUT DVD/HD, VIDEO<S>, VIDEO only)
Selecting “DYNAMIC” will make the screen display panoramic with the expansion of the middle and outside of the screen changed. (The upper and the bottom of the image will be cut by expansion.)
Dynamic image is the same as FULL size image when HDTV signal is input.
Selecting “REAL” image will be displayed 1 by 1 pixel.

CUSTOM ZOOM

“CUSTOM ZOOM” will be selected when you select “CUSTOM” on the screen “ZOOM” mode.
ZOOM: expands the horizontal and the vertical size simultaneously.
HZOOM: expands the horizontal size only.
VZOOM: expands the vertical size only.
H POSITION: moves to the right with + button. moves to the left with – button.
V POSITION: moves up with + button. moves down with – button.

H RESOLUTION * : INPUT RGB1, 2, 3, 4, 5, 6 only

Adjusts the horizontal size by increasing or decreasing the setting.
Press + button to expand the width of the image on the screen.
Press - button to narrow the width of the image on the screen.

V RESOLUTION * : INPUT RGB1, 2, 3, 4, 5, 6 only

Adjusts the vertical size by increasing or decreasing the setting.
Press + button to expand the height of the image on the screen.
Press - button to narrow the height of the image on the screen.

ROTATION

The OSD screen is rotated.

OFF

H FLIP

Horizontally rotated

V FLIP

Vertically rotated

SCREEN RESET

Selecting Screen reset allows you to reset all OSD settings from PICTURE setting.
Select “Yes” and press “SET” button to restore the factory preset data.
Press “EXIT” button to cancel and then return to the previous menu.

Main-Menu

AUDIO

■ BALANCE

Adjust the balance of L/R volume.
Press + button to move the stereo sound image to right.
Sound of the left side will be small.
Press - button to move the stereo sound image to left.

■ TREBLE

To accentuate or reduce the high frequency sound.
Press + button to increase TREBLE sound.
Press - button to decrease TREBLE sound.

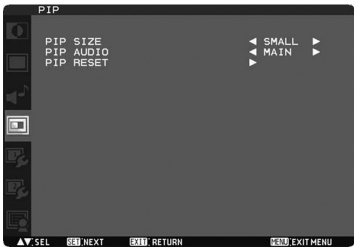
■ BASS

To accentuate or reduce the low frequency sound.
Press + button to increase BASS sound.
Press - button to decrease BASS sound.

■ AUDIO RESET

Selecting Audio reset allows you to reset all OSD settings from AUDIO setting.
Select “YES” and press “SET” button to restore the factory preset.
Press “EXIT” button to cancel and then return to the previous menu.

Main-Menu



PIP (PICTURE IN PICTURE)

Note: The “PIP” and “POP” modes do not function when the screen size is “CUSTOM” or “REAL”.

■ PIP SIZE

Selecting the size of picture inserted at the “Picture-in-Picture” (PIP) mode.
“Large”, “Middle” and “Small” are available.

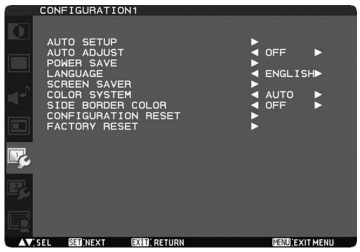
■ PIP AUDIO

Selecting the sound source in PIP mode.
When selecting “MAIN AUDIO”, you will get the sound for the main picture and when selecting “PIP AUDIO”, you will get the sound for the picture instead.

■ PIP RESET

Selecting PIP Reset allows you to reset all OSD settings from PIP setting.
Select “Yes” and press “SET” button to restore the factory preset data.
Press “EXIT” button to cancel and then return to the previous menu.

Main-Menu



CONFIGURATION 1

■ AUTO SETUP

* : INPUT RGB3, 4, 5 only

Press “SET” button to automatically adjust screen size, horizontal position, vertical position, clock, clock phase, white level and black level.
Press “EXIT” button to cancel execution AUTO SETUP and then will return to the previous menu.

■ AUTO ADJUST

* : INPUT RGB3, 4, 5 only

Selecting the auto adjust ON/OFF.
Selecting ON when changing the timing, the horizontal position, vertical position and clock-phase will adjust automatically.

■ POWER SAVE

Selecting RGB “ON”, the monitor will go to power management mode when RGB1, 2, 3, 4, 5, 6 sync is lost.
Selecting VIDEO “ON”, the monitor will go to power management mode after about 10 minutes delay from when DVD/HD, VIDEO<S> and VIDEO input signal is lost.

■ LANGUAGE

OSD control menus are available in eight languages.
(English, German, Spanish, French, Italian, Swedish, Chinese and Japanese)

■ SCREEN SAVER

Select “SCREEN SAVER” functions to reduce the risk of the “image persistence”.
GAMMA: The display gamma is changed and fixed when selected “ON”.
COOLING FAN: The built in cooling fan is always on when set “ON”. When “AUTO” is selected, the built-in cooling fan starts rotating automatically when the internal temperature exceeds the operation guarantee range.
BRIGHTNESS: The brightness is decreased when selected “ON”.
MOTION: Image is slightly expanded and moves 4 directions (UP, DOWN, RIGHT, LEFT) periodically
(Need setting the time for movement).
Movement area is approximately +/- 10mm from original position;
Please locate the important information such as text within 90% area of screen image.
See “IMAGE PERSISTENCE” on page 32 for this function.
PIP and STILL will be disabled when “MOTION” is active.

■ COLOR SYSTEM

* : INPUT VIDEO<S>, VIDEO only

Selecting the Color System depends on your input video format.
AUTO: NTSC, PAL, SECAM, PAL60 or 4.43 NTSC is automatically selected.
NTSC: Specific selection of NTSC.
PAL: Specific selection of PAL.
SECAM: Specific selection of SECAM.
PAL-60: Specific selection of PAL60.
4.43NTSC: Specific selection of 4.43 NTSC.

■ SIDE BORDER COLOR

Use to adjust the brightness of the black areas displayed on both sides of 4:3 image.
OFF, 50, and 100 are selectable.

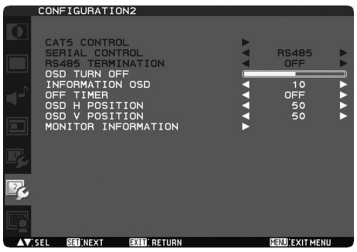
■ CONFIGURATION RESET

Selecting the CONFIGURATION RESET allows you to reset all configuration settings.
Select “Yes” and press “SET” button to restore the factory preset data.
Press “EXIT” button to cancel and return the previous menu.

■ FACTORY RESET

Selecting “YES” allows you to reset PICTURE, SCREEN, AUDIO, CONFIGURATION1,2 and ADVANCED OPTION will be back to factory settings (except LANGUAGE, DATE AND TIME, HDMI INPUT MODE, DVI INPUT MODE, DDC/CI, MONITOR ID and SCHEDULE).
Select “YES” and press “SET” button to restore the factory preset data. Press “EXIT” button to cancel and return the previous menu.

Main-Menu



CONFIGURATION 2

CAT5 CONTROL

* : Selectable only when the optional CAT5 Rx BOX is mounted.

[CAT5 CABLE LENGTH]
Select the cable length, and the defaults of all the adjustment values are automatically determined.
Select the length that is closest to the actual length of your cable.

[CAT5 EQ]
Make adjustment so that blur and smear of the displayed letters and graphic objects are minimized.

[CAT5 R-GAIN, G-GAIN, B-GAIN]
When the displayed image is dark, increase each value.
When whites aren't displayed as intended, adjust the R-GAIN and B-GAIN values.

[CAT5 R-SKEW, G-SKEW, B-SKEW]
Adjust each value so that the color deviation in the displayed letters and graphic objects is minimized.

SERIAL CONTROL

* : Selectable only when the optional CAT5 Rx BOX is mounted.

Select the communication interface (RS232 or RS485) for the serial communication function.
For connection of the signal cable, see page 35.

RS485 TERMINATION

* : Selectable only when the optional CAT5 Rx BOX is mounted.

Turn ON or OFF the termination resistance of the RS-485 interface.
ON: Select this setting to use the monitor alone or to configure the monitor as the one at the end of the connection when more than one monitor is multi-connected.
OFF: Select this setting to configure the monitor as other than the one at the end of the connection when more than one monitor is multi-connected.

OSD TURN OFF

The OSD control menu will stay on as long as it is use. In the OSD Turn Off submenu, you can select how long the monitor waits after the last touch of a button to shut off the OSD control menu.
The preset choices are 5 -120 seconds.

INFORMATION OSD

Selects the information OSD display or not.
The information OSD will display when input signal or source change or warning message like as no-signal or out-of range.
A time between 1 to 10 seconds is available.

OFF TIMER

To select OFF TIMER mode ON/OFF.
In the OFF TIMER menu, you can preset the monitor to automatically power down.
A time between 1 to 24 hours is available.
When the OFF TIMER is set, the SCHEDULE (see page 31) settings will be disabled.

OSD H POSITION

Adjusts the horizontal position of the OSD menu.

OSD V POSITION

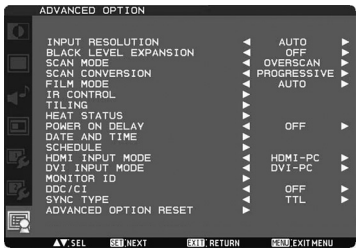
Adjusts the vertical position of the OSD menu.

MONITOR INFORMATION

Indicates the model and serial number of your monitor.

English

Main-Menu



ADVANCED OPTION

■ INPUT RESOLUTION

* : INPUT RGB3, 4, 5 only

Selects to decision of input signal about below timings, 1024x768, 1280x768 and 1360x768.
AUTO: Determines the resolution automatically.
1024x768: Determines the resolution as 1024x768
1280x768: Determines the resolution as 1280x768
1360x768: Determines the resolution as 1360x768
The setting you select becomes effective when POWER is turned OFF and ON again.

■ BLACK LEVEL EXPANSION

* : INPUT RGB1 (HDMI INPUT MODE: HDMI-HD), RGB2 (DVI INPUT MODE: DVI-HD), DVD/HD, VIDEO<S>, VIDEO only

Selects a level of black expansion from “OFF”, “MIDDLE” and “HIGH.”
In case of go under the black cut-off level, please adjust the “Black level” in moderation on OSD menu.

■ SCAN MODE

* : INPUT RGB1 (HDMI INPUT MODE: HDMI-HD), RGB2 (DVI INPUT MODE: DVI-HD), DVD/HD, VIDEO<S>, VIDEO only

Changes the display area of the image.
OVERSCAN: Set to display area about 95%
UNDERSCAN: Set to display area about 100%
NOTE: When the PIP function is activated, SCAN MODE is forcefully set to OVERSCAN.

■ SCAN CONVERSION

* : INPUT RGB1 (HDMI INPUT MODE: HDMI-HD), RGB2 (DVI INPUT MODE: DVI-HD), DVD/HD, VIDEO<S>, VIDEO only

Selects IP (Interlace to Progressive) converter function.
PROGRESSIVE: Enable the IP function, to convert interlace signal to progressive. Normally use this setting.
INTERLACE: Disable the IP function.

■ FILM MODE

Selects Film mode function.
AUTO: Enable the Film mode function. This mode is better suited for movies, which is converted 24 Frames/sec source to DVD Video. We recommend to select “PROGRESSIVE” in “SCAN CONVERSION”.
OFF: Disable the Film mode function. This mode is better suited for Broadcasting or VCR source.
NOTE: When FILM MODE is AUTO, set SCAN CONVERSION to PROGRESSIVE.

■ IR CONTROL

Selects the operation mode of the wireless remote controller when multiple MDT421S monitors are connected via RS-232C.
Select from the following four modes using the ▲ or ▼ button and then accept the selected mode by pressing the SET button.
NORMAL: The monitor will be controlled normally by wireless remote controller.
PRIMARY: The first MDT421S monitor of those multi-connected via RS-232C is designated as PRIMARY.
SECONDARY: MDT421S monitors other than the first one multi-connected via RS-232C are designated as SECONDARY.
LOCK: Disable the monitor control by infrared wireless remote controller.
Keep pressing “DISPLAY” button during 5 sec or more, this setting will return to “NORMAL”.

■ TILING

TILING demonstrates multiple screens. This feature provides a single large screen using up to 25 monitors.
It will be able to divide up to 5 each H and V.
This requires you to feed the PC output into each of the monitors through a distributor.
H MONITORS: Select number of horizontal divide.
V MONITORS: Select number of vertical divide.
POSITION: Select a position to expand the screen.
FRAME COMP.: Works in tandem with TILING to compensate for the width of the tile bezels in order to accurately display the image.
ENABLE: Select “YES”, the monitor will expand the selected position.
PIP and STILL will be disabled when “TILING” is activated.

Continued on next page.

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■ HEAT STATUS

Information of status for COOLING FAN, BRIGHTNESS and TEMPERATURE.
COOLING FAN comes to run when inside temperature is over a guaranteed limit.
In this case warning is displayed on the screen.

■ POWER ON DELAY

Adjusts the delay time from “standby” to “power on” mode.
“POWER ON DELAY” time is selectable from 0-50 seconds.

■ DATE AND TIME

Adjusts the current date and time for internal clock.
You should set this function when you use “SCHEDULE”.

■ SCHEDULE

Programs the monitor's working schedule.
Schedule the power on and power off with hour and a day of the week. Also sets the input port.
This OSD can't remove except EXIT.
(See “HOW TO SETUP SCHEDULE” on page 32.)

■ HDMI INPUT MODE

Select “HDMI-PC” when PC or other computer equipment is connected via HDMI.
Select “HDMI-HD” when DVD player, which has HDMI output, is connected via HDMI.

■ DVI INPUT MODE

Select “DVI-PC” when PC or other computer equipment is connected via DVI-D.
Select “DVI-HD” when DVD player, which has HDMI output, is connected via DVI-D.

■ MONITOR ID

ID numbers for remote control are assigned to MDT421S monitors that are multi-connected via RS-232C.
ID numbers 1 to 26 are selectable.

■ DDC/CI

Use to turn ON or OFF the DDC/CI communication function. Select ON for normal use.

■ SYNC TYPE * : INPUT RGB3, 4 only

Select “0.3V” for 0.3 Composite Sync.
Select “TTL” for TTL Sync.

■ ADVANCED OPTION RESET

Selecting ADVANCED OPTION RESET allows you to reset all OSD settings from ADVANCED OPTION settings, except for DATE AND TIME, SCHEDULE, HDMI INPUT MODE, DVI INPUT MODE, MONITOR ID, and DDC/CI.
Select “YES” and press “SET” button to restore the factory preset data.
Press “EXIT” button to cancel and then return the previous menu.

NOTE

< IMAGE PERSISTENCE >

Please be aware that LCD Technology may experience a phenomenon known as Image Persistence. Image Persistence occurs when residual or “ghost” image of a previous image remains visible on the screen. Unlike CRT monitors, LCD monitors’ image persistence is not permanent, but constant images being displayed for a long period of time should be avoided.

To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.

As with all personal display devices, MITSUBISHI ELECTRIC recommends displaying moving images and using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.

Please set “POWER SAVE”, “SCREEN SAVER”, “DATE AND TIME” and “SCHEDULE” functions to further reduce the risk of Image persistence.

< For long life use of Public Display >

Image Sticking of LCD Panel

When LCD panel is operated continuously for long hours, a trace of electric charge remains near the electrode inside LCD, and residual or “ghost” image of previous image may be observed. (Image Persistence)

Image Persistence is not permanent, but when a fixed image is displayed for a long period, ionic impurities inside LCD are accumulated along the displayed image, and it is observed permanently. (Image Sticking)

Recommendations

For preventing the fast transition to Image Sticking, and for longer life usage of LCD, the following are recommended.

1. Fixed images should not be displayed for long periods of time, and changed to another images with short cycle.
2. When the monitor is not in use, please turn it off using the remote control, use the Power Management Function or use the Schedule Function.
3. Reducing the environmental temperature is effective for long life use.
   When a Protection board (glass, acrylic) is installed over the LCD surface, enclosed into the box / wall, or the monitors are stacked, please utilize the temperature sensors inside monitor.
   To reduce the environmental temperature, the monitor should be set Low Brightness or Cooling Fan “ON” by using the Screen saver Function.
4. Please use “Screen Saver Mode” of monitor.

< HOW TO SETUP SCHEDULE >

Using the “SCHEDULE” function allows you to set up to seven different scheduled time intervals when the LCD Monitor will be activated.

You can select the time the monitor turns on and turns off, the day of week the monitor is activated, and which input source the monitor will use for each scheduled activation period. A check mark in the box next to the number of the schedule indicates that the selected schedule is in effect.

To select which schedule to set, use the up/down arrows to move the number (1 to 7) of the schedule.

Use the (+) and (-) buttons to move the cursor horizontally within the particular schedule. Use the (▲) and (▼) buttons to increase time and select input port. The “SET” button is used to make a selection.

If you create a schedule but do not want to use a power on time, select “--” in the “ON” time slot.

If you do not want to use a power off time select “--” in the OFF time slot.

If there is no input selected (“--” showing in the input spot) the input from the previous schedule will be used.

The selection of EVERY DAY within a schedule takes priority over other schedules that are set up to operate weekly.

When schedules are overlapping, scheduled Power ON time has priority over scheduled Power OFF time.

If there are two schedules programmed for the same time, then the highest numbered schedule has priority.

When the “OFF TIMER” (see page 29) is set, the “SCHEDULE” function is disabled.

< PIP, POP and SIDE BY SIDE >

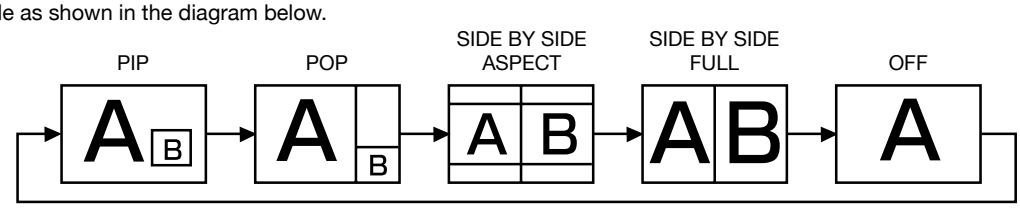
The following table shows the combination of signal inputs under which the “PIP” and “POP” modes function. These modes do not function, however, when the screen size is “CUSTOM” or “REAL”.

SUB / MAIN	RGB1 (HDMI)	RGB2 (DVI-D)	RGB3 (D-SUB)	RGB4 (BNC)	RGB5* (CAT5)	RGB6 (DISPLAY PORT)	DVD/HD (YPbPr)	VIDEO<S>	VIDEO
RGB1 (HDMI)	×	×	×	×	×	×	×	○	○
RGB2 (DVI-D)	×	×	×	×	×	×	×	○	○
RGB3 (D-SUB)	×	×	×	×	×	×	×	○	○
RGB4 (BNC)	×	×	×	×	×	×	×	○	○
RGB5* (CAT5)	×	×	×	×	×	×	×	○	○
RGB6 (DISPLAY PORT)	×	×	×	×	×	×	×	○	○
DVD/HD (YPbPr)	×	×	×	×	×	×	×	○	○
VIDEO<S>	○	○	○	○	○	○	○	×	×
VIDEO	○	○	○	○	○	○	○	×	×

○ : Supported
× : Not supported

* : RGB 5 becomes usable when the optional CAT5 Rx BOX is mounted.

Press the “PIP ON/OFF” buttons on the remote control to change between “PIP”, “POP” and “SIDE BY SIDE” mode as shown in the diagram below.



“PIP”, “POP” mode resolution (Reference)

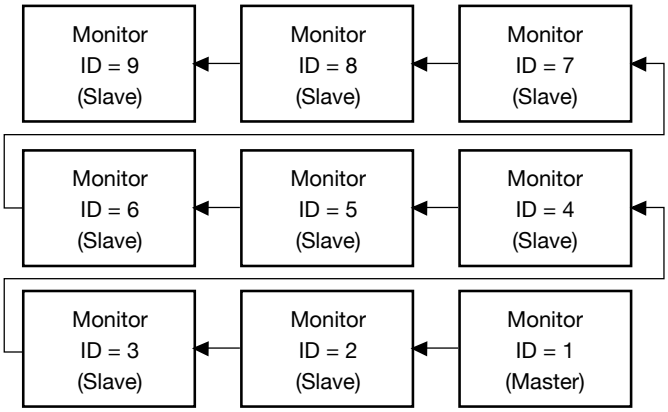
PIP SIZE ◁ SMALL ▷ : 450 pixels X 338 pixels
◁ MIDDLE ▷ : 675 pixels X 450 pixels
◁ LARGE ▷ : 900 pixels X 675 pixels
POP SIZE : 450 pixels X 338 pixels

< Supplemental information of the auto brightness function >

To control multiple monitors collectively

In such a case where the tiling function is used, you can control the auto brightness function by sharing the detection result of the brightness sensor of a certain monitor among the connected monitors.

1. Multi-connect the monitors using RS-232C or CAT5 cables separately sold as shown by the example below.


Monitor ID = 9 (Slave)
Monitor ID = 8 (Slave)
Monitor ID = 7 (Slave)
Monitor ID = 6 (Slave)
Monitor ID = 5 (Slave)
Monitor ID = 4 (Slave)
Monitor ID = 3 (Slave)
Monitor ID = 2 (Slave)
Monitor ID = 1 (Master)

Master: Monitor configured as Master that detects the outside light (Monitor ID is “1”.)
Slave: Monitor controlled by the Master monitor (Monitor ID is other than “1”.)

2. Assign a monitor ID to each multi-connected MDT421S using MONITOR ID. (See page 31.)
   Monitor ID is selectable from 1 to 26.
   The monitor ID of the Master monitor should be “1” and those of the Slave monitors should be other than “1”.
   You are recommended to assign IDs to the monitors consecutively from 1, 2, 3, and on.
3. Set AUTO BRIGHTNESS on the OSD screen (PICTURE) as follows.

	AUTO BRIGHTNESS	CONTROL
Master monitor	LOCAL	PRIMARY
Slave monitors	REMOTE	SECONDARY

To use a computer to control the monitors

When using a computer to control the monitors, you must prepare an application software program for control by yourself.

1. Connect the RS-232C IN connector of the Master monitor shown above and the RS-232C connector of the computer using an RS-232C cable.
   Or, using a CAT5 cable, connect the RS-232C connector of the computer to the CAT5 IN connector of the Master monitor via the CAT5 Tx BOX.
2. Assign a monitor ID to each multi-connected MDT421S using MONITOR ID. (See step 2 on page 33.)
3. Set AUTO BRIGHTNESS on the OSD screen (PICTURE) as follows.

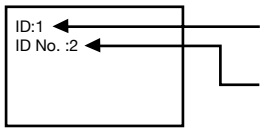
	AUTO BRIGHTNESS	CONTROL
Master monitor	REMOTE	SECONDARY
Slave monitors	REMOTE	SECONDARY

4. For the specifications of the communication commands, contact your dealer.

< Remote control numbering function >

By connecting multiple MDT421S monitors using RS-232C cables, you can control any one monitor or all the monitors by one remote controller.

1. Assign arbitrary ID number to each of multi-connected MDT421S monitors using MONITOR ID.
   ID numbers 1 to 26 are selectable.
   It is recommended to assign sequential ID numbers from 1 and up.
2. The remote control mode of the first MDT421S monitor is set to PRIMARY and those of the other monitors are set to SECONDARY.
3. When you direct the remote controller at the remote control signal sensor of the PRIMARY monitor and press the DISPLAY button on the remote controller, the ID selection OSD appears at the upper left of the screen.



ID number of the currently viewed monitor

Select the ID number of the monitor you want to control using the +/- button on the remote controller.
The ID of the monitor you want to control is displayed at the upper left of its screen.
By selecting ALL, you can control all the multi-connected monitors.

4. Direct the remote controller at the remote control signal sensor of the PRIMARY monitor.
   OSD appears on the monitor having the ID number you selected.

NOTE:

When the ID selection OSD is being displayed on the PRIMARY monitor, press the DISPLAY button on the remote controller again to cancel the ID selection OSD and then control the monitor you selected.

NOTE:

If you set the remote control mode wrongly and remote control operation becomes unavailable, press any button on the control panel of the monitor to display the OSD screen and change the remote control mode using ADVANCED OPTION. By pressing and holding down the DISPLAY button on the remote control for 5 seconds or longer, the remote control mode is initialized to NORMAL.

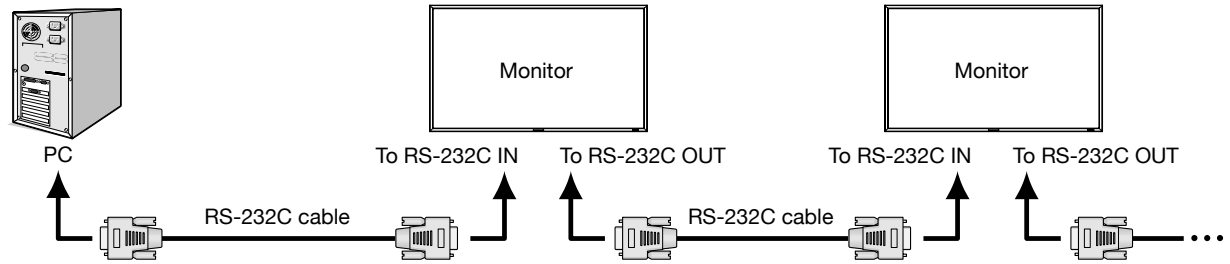
Controlling the LCD monitor via RS-232C/RS-485 Remote Control

This LCD monitor can be controlled by a personal computer connected with an RS-232C cable or a CAT5 cable via the CAT5 Tx BOX (option) and CAT5 Rx BOX (option).
Functions that can be controlled by the personal computer are:

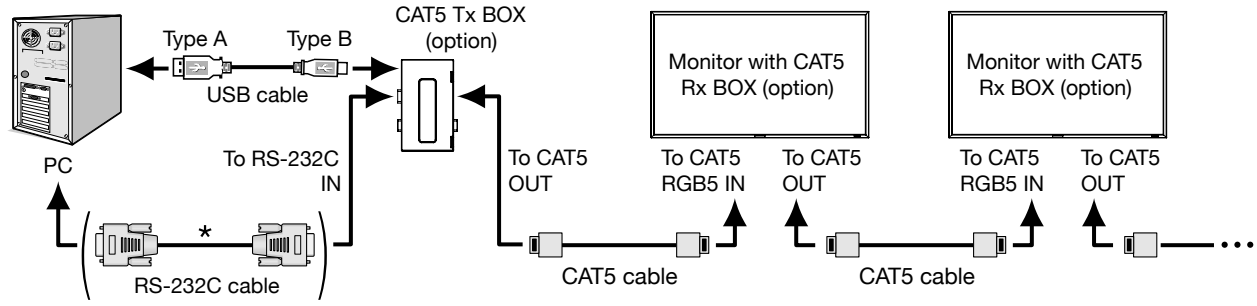
- Power ON or OFF
- Switching between input signals

Connection

Connection by RS-232C (For RS-232C cable, the reverse type cable should be used.)



Connection by CAT5 RS-485 (For CAT5 cable, the straight type cable should be used)



* This connection isn't necessary when the USB COM port is used.

NOTE:

If your PC (IBM or IBM compatible) is equipped only with a 25-pin serial port connector, a 25-pin serial port adapter is required. Contact your dealer for details.

1) Interface

PROTOCOL	RS-232C/RS-485 (CAT5)
BAUD RATE	9600 [bps]
DATA LENGTH	8 [bits]
PARITY BIT	NONE
STOP BIT	1 [bits]
FLOW CONTROL	NONE

This LCD monitor uses RXD, TXD and GND lines for RS-232C control.

2) Control command diagram

The command is structured by the address code, function code, data code and end code. The length of the command is different for each function.

NOTE:

The example below shows basic commands used for the configuration consisting of one computer and one monitor (one-to-one connection). For commands to control multi-connected monitors, contact your dealer in advance.

	Address code	Function code	Data code	End code
HEX	30h 30h	Function	Data	0Dh
ASCII	'0' '0'	Function	Data	↵

[Address code] 30h 30h (In ASCII code, '0' '0') fixed.
[Function code] A code of each fixed control move.
[Data code] A code of each fixed control data (number) and not always indicated.
[End code] 0Dh (In ASCII code, '↵') fixed.

3) Control sequence

(1) The command from a computer to the LCD monitor will be sent in 600 ms.

(2) The LCD monitor will send a return command 600 ms* after it has received and encoded. If the command isn't received correctly, the LCD monitor will not send the return command.

(3) The personal computer checks the command and confirms if the command, which has been sent, has been executed or not.

(4) This LCD monitor sends various codes other than return code. When having a control sequence by RS-232C, reject other codes from personal computers side.

* : The sending time of return command may delay depending on the condition (during changing of the input signal, etc.).

Example: Turn the power ON (' ' is for ASCII code)

Sending commands from the PC	Status code from LCD monitor	Meaning
30 30 21 0D '0' '0' '!' '↵'		Command for POWER ON
	30 30 21 0D '0' '0' '!' '↵'	Command received (Command echoed back)

4) Operation commands

The operation commands execute the basic operation setting of this LCD monitor.

It may not operate when changing the signal:

Operation	ASCII	HEX
POWER ON	!	21h
POWER OFF	"	22h
INPUT RGB 1	_r1	5Fh 72h 31h
INPUT RGB 2	_r2	5Fh 72h 32h
INPUT RGB 3	_r3	5Fh 72h 33h
INPUT RGB 4	_r4	5Fh 72h 34h
INPUT RGB 5*	_r5	5Fh 72h 35h
INPUT RGB 6	_r6	5Fh 72h 36h
INPUT VIDEO	_v1	5Fh 76h 31h
INPUT DVD/HD	_v2	5Fh 76h 32h
INPUT S-VIDEO**	_v3	5Fh 76h 33h

- POWER OFF command should be operated over 1 minute after the power is turned on.
- POWER ON command should be operated over 1 minute after the power is turned off.

* RGB 5 becomes usable when the optional CAT5 Rx BOX is mounted.

** S-VIDEO is SEPARATE only

5) Read command

Host computer sends the command without Data-code to monitor.

After receiving this command, the monitor returns the command with Data-code of current status to host computer.

Example: When Host computer ask Power status of monitor, the status of monitor is powered-on.

Command from computer	Command from Monitor	Detail of command
30 30 76 50 0D '0''0''v''P'[enter]		Ask about the power status of monitor.
	30 30 76 50 31 0D '0''0''v''P''1'[enter]	Monitor is powered-on.

Structure of the Read-command

			ASCII		HEX	
			Function	Data (Receive)	Function	Data (Receive)
POWER	ON		vP	1	76 50	31
	OFF (stand by)		vP	0	76 50	30
Input	RGB-1 (HDMI)		vI	r1	76 49	72 31
	RGB-2 (DVI-D)		vI	r2	76 49	72 32
	RGB-3 (D-SUB)		vI	r3	76 49	72 33
	RGB-4 (BNC)		vI	r4	76 49	72 34
	RGB-5* (CAT5)		vI	r5	76 49	72 35
	RGB-6 (DISPLAY PORT)		vI	r6	76 49	72 36
	Video		vI	v1	76 49	76 31
	DVD/HD		vI	v2	76 49	76 32
	S-VIDEO		vI	v3	76 49	76 33
Picture mode	HIGHBRIGHT		vM	p1	76 4D	70 31
	STANDARD		vM	p2	76 4D	70 32
Temperature of internal monitor	Around Main board	resolution 1 ℃	tc1	(ex.) +25	74 63 31	2B 20 32 35
	Around Power PCB	resolution 1 ℃	tc2	(ex.) +31	74 63 32	2B 20 33 31

* : RGB-5 becomes usable when the optional CAT5 Rx BOX is mounted.

Features

Color Control Systems:

Allows you to adjust the colors on your screen and customize the color accuracy of your monitor to a variety of standards.

sRGB Color Control:

A new optimized color management standard which allows for color matching on computer displays and other peripherals. The sRGB standard, which is based on a calibrated color space, allows for optimal color representation and backward compatibility with other common color standards.

OSD (On-Screen-Display) Controls:

Allow you to quickly and easily adjust all elements of your screen image via simple to use on-screen menus.

Plug and Play:

The Microsoft® solution with the Windows® 95/98/Me/2000/XP operating system and Windows Vista® facilitates setup and installation by allowing the monitor to send its capabilities (such as screen size and resolutions supported) directly to your computer, automatically optimizing display performance.

Intelligent Power Manager System:

Provides innovative power-saving methods that allow the monitor to shift to a lower power consumption level when on but not in use, saving two-thirds of your monitor energy costs, reducing emissions and lowering the air conditioning costs of the workplace.

Multiple Frequency Technology:

Automatically adjusts monitor to the display card's scanning frequency, thus displaying the resolution required.

FullScan Capability:

Allows you to use the entire screen area in most resolutions, significantly expanding image size.

Wall Mounting Interface:

Allows for the monitor to be mounted on a wall or an arm using any third party compliant device. MITSUBISHI ELECTRIC recommends using mounting interface that comply with TÜV-GS and/or UL1678 standard in North America.

TILING, Frame compensation:

Demonstrates multiple screens with an accurate image and compensates for the bezel width.

ZOOM:

Expands the image individually for horizontal and vertical direction.

Self-diagnosis:

When an internal error should occur, a failure state will be indicated.

CAT5 Long Cable Compensation:

CAT5 long cable compensation prevents image quality degradation (color shift and dull signals) caused by long cable lengths.

Troubleshooting

No picture

- The signal cable should be completely connected to the display card/computer.
- The display card should be completely seated in its slot.
- Front Power Switch and computer power switch should be in the ON position.
- Check to make sure that a supported mode has been selected on the display card or system being used. (Please consult display card or system manual to change graphics mode.)
- Check the monitor and your display card with respect to compatibility and recommended settings.
- Check the signal cable connector for bent or pushed-in pins.
- If nothing is displayed on the screen when HDCP device is connected, reset the power of the device.

Power Button does not respond

- Unplug the power cord of the monitor from the AC outlet to turn off and reset the monitor.

Image persistence

- Please be aware that LCD Technology may experience a phenomenon known as Image Persistence. Image Persistence occurs when a residual or “ghost” image of a previous image remains visible on the screen. Unlike CRT monitors, LCD monitors’ image persistence is not permanent, but constant images being displayed for a long period of time should be avoided. To alleviate image persistence, turn off the monitor for as long as the previous image was displayed. For example, if an image was on the monitor for one hour and a residual image remains, the monitor should be turned off for one hour to erase the image.

NOTE:

As with all personal display devices, MITSUBISHI ELECTRIC recommends displaying moving images and using a moving screen saver at regular intervals whenever the screen is idle or turning off the monitor when not in use.

Image is unstable, unfocused or swimming is apparent

- Signal cable should be completely attached to the computer.
- Use the OSD Image Adjust controls to focus and adjust display by increasing or decreasing the fine adjustment. When the display mode is changed, the OSD Image Adjust settings may need to be re-adjusted.
- Check the monitor and your display card with respect to compatibility and recommended signal timings.
- If your text is garbled, change the video mode to non-interlace and use 60 Hz refresh rate.

Image of component signal is greenish

- Check to see if the DVD/HD input connector is selected.

LED on monitor is not lit (no green or red color can be seen)

- Power Switch should be in the ON position and power cord should be connected.
- Make certain the computer is not in a power-saving mode (touch the keyboard or mouse).

RED LED on monitor is blinking

- A certain failure might have occurred, please contact your nearest authorized MITSUBISHI ELECTRIC service facility.

Display image is not sized properly

- Use the OSD Image Adjust controls to increase or decrease the coarse adjustment.
- Check to make sure that a supported mode has been selected on the display card or system being used. (Please consult display card or system manual to change graphics mode.)

Selected resolution is not displayed properly

- Use OSD Display Mode to enter Information menu and confirm that the appropriate resolution has been selected. If not, select corresponding option.

No Sound

- Check to see if speaker cable is properly connected.
- Check to see if mute is activated.
- Check to see if volume is set at minimum.

Remote Control is not available

- Check the Remote Control's batteries status.
- Check if batteries are inserted correctly.
- Check if the Remote Control is pointing at the monitor's remote sensor.

"SCHEDULE"/"OFF TIMER" function is not working properly

- The "SCHEDULE" function will be disabled when the "OFF TIMER" is set.
- If the "OFF TIMER" function is enable and the power to the LCD monitor is turned off if the power supply is interrupted unexpectedly, then the "OFF TIMER" will be reset.

Stripe Noise

Either light vertical or horizontal stripes may appear, depending on the specific display pattern. This is no product fault or degradation.

"NO SIGNAL" is displayed on the screen

Image may not be displayed right after HDCP device is connected.

Specifications

Specifications (MDT421S)

Product Specifications		Analog Input	Digital Input
LCD Module	Diagonal:	42" / 106.7 cm	
	Pixel Pitch:	0.485 mm	
	Resolution:	1920 x 1080 pixels (2070000 pixels)	
	Color:	Over 1.0 billion colors (depending on video card used)	
	Brightness:	700 cd/m^2 (typ.)	
	Contrast Ratio:	1100:1	
	Response time:	9 ms (G to G)	
	View Angle:	Up and Down 178°, Left and Right 178° @CR>10	
Frequency	Horizontal:	15.625 / 15.734, 31.5 - 91.1 kHz	
	Vertical:	50.0 / 58.0 - 85.0 Hz	
Pixel Clock		13.5 - 165.0 MHz	25.0 - 165.0 MHz
Viewable Size		930.3 x 523.3 mm / 36.6 x 20.6 inches	
Input Signal			
PC-Input:	Video:	Analog RGB Video: 0.7 Vp-p Input impedance 75 ohm	TMDS
	Sync:	Separate HV sync: TTL level (Pos./Neg.), Sync-on-green, Composite Sync (0.3 Vp-p) Input Impedance 2.2 K ohm	
	Input-terminal:	BNC (R,G,B,H,V), 15 Pin Mini D-sub	HDMI, DVI-D DISPLAY PORT
VIDEO Input:		Composite: 1.0 Vp-p Input impedance 75ohm BNC and RCA-PINJACK-INPUT Y/C Y: 1 Vp-p C: 0.286 Vp-p Input Impedance 75 ohm S-TERMINAL-INPUT Component: 1.0 / 0.7 Vp-p Input Impedance 75 ohm BNC-INPUT	
AUDIO Input:		RCA PIN-JACK L/R INPUT x 2, STEREO Mini Jack INPUT x 1	
RS-232C:	In:	9 Pin Mini D-sub	
Output Signal			
PC-Output:	Video:	Analog RGB Video: 0.7 Vp-p with 75 ohm terminated	
	Sync:	Separate HV sync: TTL level (Pos./Neg.)	
	Output-terminal:	15 Pin Mini D-sub	
VIDEO Output:		BNC-OUTPUT x 1, Composite 1.0 Vp-p with 75 ohm terminated	
AUDIO Output:		RCA PIN-JACK L/R OUTPUT x 1, 0.15 Vrms with 47k ohm terminated	
Speaker Output:		External Speaker Jack 7 W + 7 W (8 ohm)	
RS-232C:	Out:	9 Pin Mini D-sub	
Resolutions Supported		640 x 480 at 60 Hz to 85 Hz 800 x 600 at 50 Hz, 60 Hz to 85 Hz 1024 x 768 at 50 Hz, 60 Hz to 85 Hz 1280 x 768 at 50 Hz, 60 Hz to 85 Hz 1360 x 768 at 50 Hz, 60 Hz to 85 Hz 1280 x 1024 at 60 Hz to 85 Hz 1600 x 1200 at 60 Hz 1920 x 1080 at 60 Hz* (* : Recommended Resolution) 1920 x 1200 at 60 Hz NTSC,PAL,SECAM,4.43NTSC,PAL60 Component:480i,480p,720p,1080i,1080p	
Power Supply		2.4 - 1.1 A @100 - 240 V AC, 50 / 60 Hz	
Power Consumption		232 W	
	Power Save:	3 W or less (Power button ON/Main power switch ON/Sleep mode) 3 W or less (Power button OFF/Main power switch ON)	
Operational Environment	Temperature:	Landscape: 5 - 40 °C / 41-104 °F, Portrait : 5 - 35 °C / 41 - 95 °F	
	Humidity:	20 - 80 % (Without condensation)	
Storage Environment	Temperature:	-20 - 60 °C / -4 - 140 °F	
	Humidity:	10 - 90% (Without condensation)/90%-3.5%x(Temp-40 °C) regarding over 40 °C	
Dimension	Net:	965.6 mm (W) x 558.6 mm (H) x 115.9 mm (D) / 38.02" (W) x 21.99" (H) x 4.56" (D)	
	Gross:	1130 mm (W) x 709 mm (H) x 280 mm (D) / 44.49" (W) x 27.91" (H) x 11.02" (D)	
Weight	Net:	51.8 lbs / 23.5 kg (Approximately)	
	Gross:	68.3 lbs / 31 kg (Approximately)	
Wall mounting interface		12 Holes (100 mm pitches) Optional Multi-purpose Fix Mount	
Complied Regulatory and Guidelines		UL60950-1/C-UL/EN60950-1/FCC-B/DOC-B/EN55022-B/CCC EN55024/EN61000-3-2/EN61000-3-3/C-Tick/CE/GOST-R	
Power Management		VESA DPM	
Plug & Play		VESA DDC2B, DDC/CI	
Accessories		User's Manual, Power Cord, Video Signal Cable, Remote Controller, AAA Battery x 2, Clamper x 2 (To prevent from falling), Clamper x 3 (For securing cables), Clamper x 2 (For securing the power cord, HDMI cable, and Display Port cable), Screw for CLAMPER x 2	

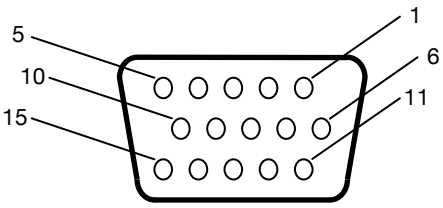
Note: Technical specifications are subject to change without notice.

Pin Assignment

1) Analog RGB input (Mini D-SUB 15P): RGB3

Pin No	Name
1	Video Signal Red
2	Video Signal Green
3	Video Signal Blue
4	GND
5	DDC-GND
6	Red-GND
7	Green-GND
8	Blue-GND
9	+5V (DDC)
10	SYNC-GND
11	GND
12	DDC-SDA
13	H-SYNC
14	V-SYNC
15	DDC-SCL

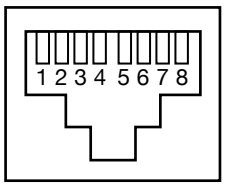
Mini D-SUB 15P



2) Analog RGB input (CAT5): RGB5

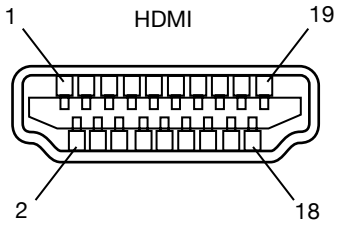
Pin# at RJ45	Signal	Pair
#1	Red Video+	
#2	Red Video-	
#3	Green Video+	
#4	Blue Video+	
#5	Blue Video-	
#6	Green Video-	
#7	RS-485+	
#8	RS-485-	

CAT5



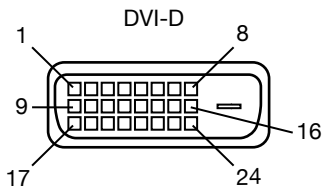
3) Digital RGB input (HDMI): RGB1

Pin - Assignment of HDMI connector:					
1	TMDS Data2+	8	TMDS Data0 Shield	15	SCL
2	TMDS Data2 Shield	9	TMDS Data0-	16	SDA
3	TMDS Data2-	10	TMDS Clock+	17	DDC/CEC Ground
4	TMDS Data1+	11	TMDS Clock Shield	18	+5V Power
5	TMDS Data1 Shield	12	TMDS Clock-	19	Hot Plug Detect
6	TMDS Data1-	13	CEC		
7	TMDS Data0+	14	Reserved (N.C. on device)		



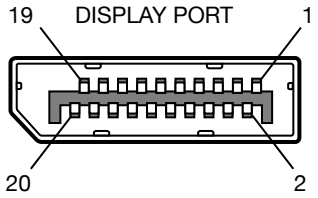
4) Digital RGB input (DVI-D): RGB2

Pin - Assignment of DVI-D connector:					
1	TMDS Data2-	9	TMDS Data1-	17	TMDS Data0-
2	TMDS Data2+	10	TMDS Data1+	18	TMDS Data0+
3	TMDS Data2 Shield	11	TMDS Data1 Shield	19	TMDS Data0 Shield
4	NC	12	NC	20	NC
5	NC	13	NC	21	NC
6	DDC Clock	14	+5V Power	22	TMDS Clock Shield
7	DDC Data	15	Ground (return for +5V, H-SYNC and V-SYNC)	23	TMDS Clock+
8	Analog Vertical Sync	16	Hot Plug Detect	24	TMDS Clock-



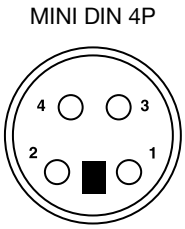
5) Digital RGB input (DISPLAY PORT): RGB6

Pin No	Name	Pin No	Name
1	ML_Lane 3 (n)	11	GND Top
2	GND	12	ML_Lane 0 (p)
3	ML_Lane 3 (p)	13	CONFIG1
4	ML_Lane 2 (n)	14	CONFIG2
5	GND	15	AUX CH (p)
6	ML_Lane 2 (p)	16	GND
7	ML_Lane 1 (n)	17	AUX CH (n)
8	GND	18	Hot Plug Detect
9	ML_Lane 1 (p)	19	Return
10	ML_Lane 0 (n)	20	DP_PWR



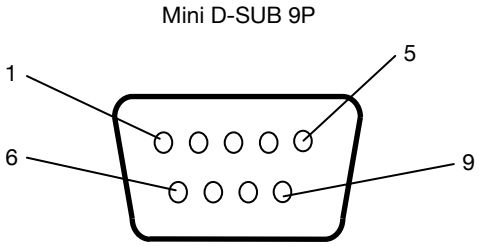
6) S-VIDEO input (MINI DIN 4P): VIDEO<S>

Pin No	Name
1	GND
2	GND
3	Y (Luminance)
4	C (Chroma)



7) RS-232C input/output

Pin No	Name
1	NC
2	RXD
3	TXD
4	NC
5	GND
6	NC
7	NC
8	NC
9	NC



Indication following "Controlling Pollution by Electronic Information Products" for (Product Name: LCD monitor)
(Model Name: MDT421S)

(1) Mark for Prevention and Control of Pollution by Electronic Information Products

Note: This symbol mark is China only.

This mark is the environmental friendly usage life of electronic information products applied to electronic information products sold in China, and is based on the "Prevention and Control of Pollution by Electronic Information Products Law" announced on February 28, 2006.
As long as the consumer uses the product while observing the safety and handling precautions, environmental pollution or harm to human life or properties will not result within this set limit calculated from the date of manufacture.

Note) For the environmental friendly usage life of consumable parts, such as batteries enclosed with this product, the average product life is three years. When disposing a finished product, cooperate by following local laws and regulations on the collection and recycling of electronic information products.

(2) Names of six hazardous substances contained, concentration and containing part

The names, concentration and parts of the six hazardous substances contained are listed below.

Part name	Hazardous/toxic substances or elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Printed circuit board	X	O	O	O	O	O
Liquid crystal display	X	X	O	O	O	O
Cabinet, chassis	X	O	O	O	O	O
Others (Cable, remote control, etc.)	X	O	O	O	O	O

Remarks (Meaning of O and X)
O: The concentration of hazardous/toxic substances in the homogeneous material of all corresponding members does not exceed the standards set forth in SJ/T11363-2006.
X: The concentration of hazardous/toxic substances in the homogeneous materials of all corresponding members exceeds the standards set forth in SJ/T11363-2006.

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